AVIATION SAFETY

(Status of the U.S. Air Traffic Control System)

(101-12)

HEARING

BEFORE THE

SUBCOMMITTEE ON
INVESTIGATIONS AND OVERSIGHT

OF THE

COMMITTEE ON
PUBLIC WORKS AND TRANSPORTATION
HOUSE OF REPRESENTATIVES

ONE HUNDRED FIRST CONGRESS

FIRST SESSION

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AVIATION SAFETY (STATUS OF U.S. AIR TRAFFIC CONTROL SYSTEM)

THURSDAY, MAY 25, 1989

House of Representatives,
Subcommittee on Investigations and Oversight,
Committee on Public Works and Transportation,
Washington, DC.

The subcommittee met, pursuant to call, at 9:30 a.m., in Room 2167, Rayburn House Office Building, Hon. Glenn M. Anderson [chairman of the subcommittee] presiding.

Mr. **Anderson**. The meeting of the committee will come to order.

This morning the subcommittee resumes its inquiry into conditions affecting the safety of the nation's air traffic control system.

For more than a decade now, the subcommittee has been examining various aspects of aviation safety. As the authorizing committee in the field of commercial aviation, it has been the job of the Public Works and Transportation Committee, through this subcommittee, to oversee the safety of the traveling public, and when necessary, to question the performance of our Federal agencies.

When I assumed the chairmanship of this subcommittee, it was my intention to pursue the rebuilding of America's infrastructure, from the improvement of the nation's highways and bridges to the enhancement of the National Airspace System. Thus it is appropriate, and in view of the continuing pressure to increase the capacity of the system, timely, that we evaluate the FAA's rebuilding of the air traffic control system.

The focus of today's hearing is safety. Aviation safety is predicated upon the concept of redundancy. Aircraft, for example, employ back-up components, systems and crew to provide a "margin of safety." The margin of safety must be monitored and any safety problems resolved before, not after, accidents occur. Accidents only represent the final result of an unsafe system.

Three years ago, the General Accounting Office reported the results of an extensive study it had conducted on the air traffic control work force. GAO concluded that the system did not provide the same level of safety as before the 1981 strike, and that controllers and their supervisors had serious concerns about their ability to maintain the proper margin of safety.

The conclusions of that study were disturbing. It was disturbing to hear that nearly five years after the strike, this vital part of America's aviation infrastructure was still not rebuilt.

The 1986 report provided a base line against which we could assess future progress in rebuilding the system. This morning we will receive the results of a reevaluation of the work force GAO conducted at our request. I must note that upon an initial reading, the results are again disappointing. In fact, the results are virtually identical to the earlier report.

We will try to find out why at this hearing. And we will try to determine why, nearly eight years after the strike, the system is still not rebuilt.

I look forward to a productive session as we hear from the General Accounting Office, the Flight Safety Foundation, the National Air Traffic Controllers Association, Federal Managers Association and the Federal Aviation Administration.

I want to acknowledge the participation and untiring enthusiasm of my distinguished colleague from New York, Mr. Molinari, whose interest and expertise has been invaluable in putting together this hearing.

Does the gentleman from New York wish to make an opening statement?

Mr. MOLINARI. I do, Mr. Chairman; I thank you for those kind remarks.

Two years ago, I was sitting in this room listening to testimony from the General Accounting Office regarding the dissemination of severe weather information by air traffic controllers to pilots. Herbert McLure, then testifying for GAO, stated that the empirical evidence he was using concerning the air traffic control system, the GAO 1986 report "Serious Problems Concerning the Air Traffic Control Work Force," was outdated.

I seized upon this comment and requested that the GAO again survey air traffic controllers, supervisors and facility managers at the busiest terminals and centers in the country. This would give us updated information on such issues as how often a controller refuses to provide a pilot with severe weather information during peak traffic periods. I was particularly gratified that you, Mr. Chairman, joined in that request, helping to set the stage for today's hearing.

It is most unfortunate that today's results are nearly a replica of GAO's last survey. Little has actually improved in the air traffic control environment in the past several years. Contrary to Herb McLure's comment two years ago that things had probably changed, requiring the need for a new survey, the 1985 GAO survey remains valid today as it was then. Today's survey reiterates those results. The same problem areas that GAO recognized in 1985, and many of the same problems that contributed to the controllers' strike in 1981 still plague the Air Traffic Control System. The FAA has failed in these eight years to rebuild the Air Traffic Control System adequately and they have failed to heed the views of controllers and supervisors. In short, the FAA simply ignored recommendations for change.

The most salient point of the GAO report, "Serious Problems Continue to Trouble the Air Traffic Control Work Force," that Chairman Anderson and I are releasing today, shows the continuing communication gap between FAA management and controller supervisors. The perceptions of management and controllers are worlds apart. It is hard to understand how facility managers and controllers in the same building perceive work conditions so differently.

Controllers and their supervisors see a continued shortage of both experienced Full Performance Level (FPL) and developmental controllers. While FAA's staffing assumptions remain highly optimistic, in the past two and one half years the FPL controller ranks has only increased by a 100 experienced controllers. I have some updated information I received this morning that is perhaps even more sobering. In fiscal year 1988 from the period September 30, 1988 to April 30, 1989, September 30, 1988, there were 9,858 full performance level controllers, and on April 30th of this year, 9,689. We have lost in that period of time 150 FPLs, and that says something about the system. Today we are still 3,600 FPL controllers short of the level we had at the time of the strike.

This critical controller shortage is the basis for the adverse work conditions that plague the system. Controllers, for example, told GAO that they are still handling too much traffic, working long periods without breaks and are required to work more overtime than they desire. Controllers during peak hours are so busy that they still often refuse to provide pilots with severe weather information, something that disturbs me deeply. While managers realize the need for additional FPL controllers they fail to recognize the strain this shortage places on working controllers.

Despite the fact that morale of controllers and supervisors remains very low, facility managers do not even recognize this as a problem in their employees. In fact, they feel that controller and supervisor morale is actually high. This major divergence of views is typical of the gap between employees and management in the air traffic division.

Unfortunately, the future does not look bright. FPL controllers do not think highly of the abilities of controllers in developmental training. They rated, for example, developmental controllers poor in handling backup systems, controlling traffic in bad weather, emergency procedures and holding patterns. Moreover, they are truly concerned about the development of controllers' talent, attitude, skill load and ability to learn. Yet, again facility managers see training as fine and developmental controllers as talented.

It has been eight years since the strike, yet the problems that plagued those controllers still exist today. The controller/supervisor work force has been studied and surveyed over and over again since the 1981 strike. For example, the Jones Report and our own 1985 Committee Report documented the morale problem. The issues are clear and they have again resurfaced in this report. Controllers and supervisors have outlined them and continue to be concerned for the safety of the system. That is what this is all about. One conclusion we can draw from this report is that while there has been little improvement the communications gap has widened.

In order to solve the problems of critical staffing shortages, heavy work loads and the like, managers must deal with them instead of ignoring them. Only through creative understanding and cooperation between management and labor will we ever solve the serious problems in the air traffic control system. I recommend and feel strongly that a study should be undertaken focusing on the morale issue so that we can finally solve this attitudinal problem.

I commend the General Accounting Office for a superb product. They again have proven to be a great asset in monitoring aviation safety issues. I look forward to their testimony. I also wish to thank GAO for briefing our other witnesses. All of our witnesses today received not only this comprehensive briefing but also advance copies of the report. I look forward to their testimony.

Once again, Mr. Chairman, I would like to thank you for joining me in requesting this GAO survey and in holding this hearing today.

I would just like to add one postscript to my statement. I have traveled throughout this country and probably have visited more air traffic control facilities than any member of Congress. If you get into those facilities and you do an all-hands session, as we have done at New York Center and Washington Center and Boston Center, Mr. Whittington and myself and others, then you hear what GAO is saying in the report today, then you hear bad conditions are at some of our centers, and for God sakes, we are not even talking about the large expenditures of money, as we often do in Congress to solve a problem.

Sometimes nothing more complicated than a facility manager getting down in the ranks to talk to the troops and find out from them how they feel about the system because, let me tell you something, those of you from FAA, they are the experts, they are the true experts, and they are going to tell you how to refine the system and make it a better system and make it a safer system.

I think that is the most serious problem. It is very frustrating for me since I have been wrestling with this problem for years and years and years and I don't see any real improvement. I hope that as a result of the hearing today we can start to focus on that issue and reach some kind of a consensus on a course of action that we should examine to address that problem once and for all.

Thank you, Mr. Chairman.

Mr. ANDERSON. Thank you, Mr. Molinari. Before I ask for any other opening statements, I do want to welcome a new member who just was recently appointed to our committee, and I believe, Glen, this is the first subcommittee you have attended, Glen Browder from Alabama. I think this is your first time you have attended this subcommittee, isn't it, Glen?

Mr. BROWDER. Yes, it is Mr. Chairman.

Mr. ANDERSON. We want to welcome you and say we are glad to have you.

Mr. BROWDER. Thank you. I look forward to working with this subcommittee on its important work.

Mr. ANDERSON. Are there any further opening statements?

Mr. Hastert?

Mr. HASTERT. I just want to congratulate you, Mr. Chairman, and certainly our ranking member for bringing this issue before this subcommittee. I have the Chicago Center in my district, and weekly if not daily we hear reports from people how to make things better, and I have had the pleasure and the responsibility of visiting those centers and listening to those issues and also the cooperation of the FAA in trying to implement some of that, but I think it behooves this committee to do a couple things, to listen to what the problems are, to try and make sure that we have the number of people and the promised number of people on line that can face the responsibility that the FAA has undertaken in making sure that we have safe skies.

The other issue is an issue that we face in this committee from time to time and a very important issue, and that is making sure that the airline trust funds go for the purpose that they are intended to go to and not to use as a shade against our great deficit in this country, so I think combined in those issues and the probe that we do here today certainly will be a step in building towards safer skies and a safer airline safety system.

So I commend you, Mr. Chairman, and certainly our ranking Member who has had an interest in this for a long, long time and look forward to participating with you today.

Mr. **Anderson**. Thank you, Mr. Hastert.

A few moments ago, Congressman Norm Mineta was here. He is the former chairman of the aviation subcommittee. He had to go. I believe he is coming back a little later; I am not sure. But without objection, the Chair will enter Mr. Mineta's statement in the record at this time.

[The statement of Hon. Norman Y. Mineta follows:]

Prepared Statement of Hon. Norman Y. Mineta

Good morning. I commend you, Mr. Chairman, for your leadership in investigating the state of the air traffic control workforce.

Perhaps someday the need for hearings on this issue will not be so acute. Perhaps someday our air traffic control workforce will be free from gaps in training, grueling overtime, and low morale.

My hope is that the controller workforce will soon be large enough to meet our nation's air travel needs. But until then, it appears that we will continue to need experts to shine a light on the seriousness of the situation.

As Yogi Berra once said, "It's deja vu all over again."

Today, once again, GAO will be before us to outline the depressing results of their in-depth survey of the attitudes of our air traffic controllers, supervisors, and facility managers. Their study indicates that controllers and supervisors see many problems in the air traffic control system, problems which their bosses, the facility managers, do not see.

Controllers complain of handling too much traffic, with too few breaks and too much overtime. They state their morale is low. They see problems in aspects of training. The facility managers, in general, do not see these same problems.

A few years ago, we had heard essentially the same information from an earlier GAO survey. As the new GAO study title states, "Serious Problems Continue to Trouble the Air Traffic Control Work Force."

The purpose of this hearing is not to point fingers. More than determining who is right and who is wrong, we need to address the Gap between the controllers and supervisors on the one hand and the facility managers on the other. We must determine what steps can be taken to move forward and deal with these concerns both positively and directly.

What are the workplace conditions and attitudes which lead to the concerns on the part of air traffic controllers which the study so exhaustively documents? Perhaps more importantly, what can the FAA do to relieve these problems? Or what has the FAA neglected to do?

I am eager to hear from our witnesses today. I commend the GAO for its persistence and dedication to this task. The GAO has produced a useful tool. But their study is also a warning. Through this study, many of those working in our air traffic control are calling out for help.

We cannot afford to ignore these danger signals. This GAO study must be heeded not only for the good of the hard-working individuals who so loyally run the air traffic control system, but to maintain the margin of safety for the benefit of all air travelers.

Thank you, Mr. Chairman.

Mr. **Anderson**. At this time we will recognize our first witnesses. Oh, Mr. Inhofe, I am sorry.

Mr. **Inhofe**. Mr. Chairman, I don't have a printed statement, but I want to echo what the rest of my colleagues have said about holding this hearing. I plan to be here during the entire time that the hearing is taking place. I come from a little different perspective than other members of the committee in that I have been a commercial aviator for a number of years and for some over 30 years have been peddling around up there totally depending upon these individuals who are controlling on the ground.

I can assure you that you have a different perspective if you have been having your life in their hands for some 30 years. I would have to say that I can't recall ever coming in contact in government with a more dedicated group, and even though they have gone through some difficult times and remember the strikes and those individuals who worked that much harder during that very difficult period of time, I always felt that those individuals put the safety of those of us who are peddling through that stuff number one priority in their own minds and not what is going to happen to their own careers.

I think it is very important that we take a look at this and look at the problems they have, face those problems, and realize how many lives depend upon these individuals who are very dedicated.

Thank you, Mr. Chairman.

Mr. **Anderson**. Our first panel this morning is Mr. Kenneth Mead, Director of Transportation Issues of the U.S. General Accounting Office. He is accompanied by Mr. Tom Barchi, Assistant Director of the GAO, Mr. Edward Wood, Director of Engineering, Flight Safety Foundation, Mr. Joseph Kredatus, Evaluator-in-Charge, GAO, Mr. Leonard Wojcik, Research Analyst of the Flight Safety Foundation and Mr. Brian McCauley, Evaluator, GAO.

Would each of you stand up and raise your right hands. Do you solemnly swear the testimony you will give before this subcommittee will be the truth, the whole truth, and nothing but the truth so help you God?

[All answered affirmative.]

Mr. **Anderson**. Thank you, very much.

My first name down here is Mr. Kenneth Mead. Mr. Mead, you can follow that order or you can arrange it anyway you wish.

TESTIMONY OF KENNETH MEAD, DIRECTOR, TRANSPORTATION ISSUES, RESOURCES, COMMUNITY AND ECONOMIC DEVELOPMENT DIVISION, U.S. GENERAL ACCOUNTING OFFICE, ACCOMPANIED BY THOMAS BARCHI, ASSISTANT DIRECTOR, GAO; JOSEPH KREDATUS, EVALUATOR-IN-CHARGE, GAO; EDWARD WOOD, DIRECTOR OF ENGINEERING, FLIGHT SAFETY FOUNDATION; LEONARD WOJCIK, RESEARCH ANALYST, FLIGHT SAFETY FOUNDATION; AND BRIAN McCAULEY, EVALUATION, GAO

Mr. **Mead**. Thank you Mr. Chairman, Mr. Molinari, members of the subcommittee. We appreciate the opportunity to testify today on the results of our survey of the air traffic control work force.

I would like to reintroduce my colleagues at the table. On my immediate left is Tom Barchi. He is Assistant Director for our aviation human resources work. On his left is Joe Kredatus of our Philadelphia regional office. He actually ran this survey.

I imagine you will have a number of questions for him today. Over here at the charts is Mr. Brian McCauley, also of our Philadelphia regional office. On my immediate right is Ed Wood. On his right, Dr. Wojcik. Both of these gentlemen are from the Flight Safety Foundation, who were on board as our consultants during the course of our review.

Mr. Chairman, the purpose of our survey was to determine how the work force perceives working conditions and other aspects of the Air Traffic Control System. I will be referring to that today as the ATC system. We were here in this room three years ago on this same subject. This survey updates our 1985 survey and represents the views of the controllers, supervisors and facility managers at FAA's 84 largest facility.

This survey is among the largest that GAO has conducted. 5,098 of 6,469 questionnaires were returned. The rate of response, nearly 80 percent was by any standard exceptional. We appreciate the cooperation of the air traffic control work force in completing our survey. The survey results being released today by the subcommittee show that controllers and to a somewhat lesser extent supervisors are troubled by a wide range of working conditions, such as handling too much traffic, working too long on position, other aspects of air traffic control that affect system safety and operating efficiently.

In contrast, facility managers viewed conditions much more favorably. On the whole, controllers, supervisors, and facility managers, views did not differ substantially from our 1985 survey results. It should also be noted that the results of both our 1985 and 1980 surveys varied among individual surveys, in some cases significantly. We asked the Flight Safety Foundation, our consultant, to review the survey results. Overall, it sees little improvement in the system since 1985.

The foundation concluded that the system is not unsafe but that the margin of safety remains somewhat less than desirable. We believe, Mr. Chairman, that the responses to the survey represent a powerful statement on the part of controllers about the need for effective human resource management and modernization.

FAA has recently undertaken or planned initiatives that if sustained have the potential for addressing in the long term some conditions of concern to the controllers. However, they clearly have not had a discernible impact on narrowing the gap that exists between facility managers' perceptions and the rest of the work force.

Before discussing our survey results, I want to provide a perspective on FAA's rebuilding of the work force. I will be using charts today. They correspond to the charts at the end of the prepared statement. As this first chart shows, FAA has increased the numbers of controllers since 1985. However, controllers still number about 1800 fewer than before the strike, about 14,000, as of September '88, compared with about 16,200 prior to the strike.

Also, the number of full performance level controllers, which are the core of experienced controllers in fiscal year 1988 was about

3300 short of the pre-strike number. In 1981, 81 percent of the controllers were FPLs in contrast to 68 percent today. I might also note that in 1965 the FPLs represented 66 percent of the work force, so you can see the level of improvement since then is slightly under two percent.

As you know, FAA has sought waivers for meeting its goals for FPLs in each of the last two years, and it is unlikely, in our view, that currently year goals will be met. The reason for our lack of optimism is the pattern from 1987 to 1988 and the fact that as of the end of April of this year there were fewer FPLs in the system than at the end of fiscal year 1988. To reach the FPL goals of 12,725 by the end of fiscal year 1990, FAA will have to add about 3100 FPLs. That is an unprecedented increase.

Even then FAA will not have reached its pre-strike number of FPLs. A number of factors have affected FAA's progress in adding into controllers. That can be illustrated by the fact that FAA needs about 100 applicants to eventually produce one full-performance level controller. Loss of high potential candidates offers because of the 12 to 18 months to hire and a continuing 40 percent attrition rate at the FAA academy have made it difficult for FAA to replace the nearly 11,000 controllers that it lost following the strike.

Another factor that can affect this progress is retirements, especially at the supervisory level. About 29 percent of the first line supervisors told us that they are now eligible to retire, and a substantial majority of these plan to do so. While FAA has been trying to improve its staffing, the volume of traffic has increased every year since the strike.

Now as this chart shows, since 1982, traffic volume at terminals and traffic volume at centers has grown by 40 percent and 30 percent, respectively. Together flight operations in 1988 exceeded about 80 billion, compared with 60 billion in 1982.

In 1988 there were about ten million more flight operations than when we completed our survey in 1985, so you can see the traffic has considered to grow substantially. Now FAA expects air traffic to continue to grow even further, reaching about 100 million operations by 1995. A couple points I would like to make about this chart in addition to the fact that there is substantial increase in operation system-wide since 1985 is the facilities covered by our survey and questionnaire and responses account for over 80 percent of the traffic in our nation's air traffic control system.

I might discuss the problems troubling the air traffic control work force. Controllers express specific concerns about various working conditions, including too few controllers handling too many aircraft, overtime, quality of developmental training and morale.

They also viewed airline scheduling practices, out-of-date equipment as contributing significantly to their difficulty. Supervisors shared many of these same concerns, although facility managers agree with controllers that FPL staffing is too low, that airline scheduling hinders traffic flow, and that out-of-date equipment is a serious problem, they generally disagreed with the controllers on other very critical issues.

For example, managers generally did not think that controllers handled too much traffic. They thought the amount of overtime was appropriate. They viewed most aspects of developmental training as predominantly good or excellent, and most viewed the morale of controllers as high.

Many controllers and supervisors offered comments at the end of our questionnaire on working conditions at their facility. Collectively they made over 2,000 comments, which represent a little under half of those surveyed. That is a large number of comments. Because these comments helped to explain the statistics from our questionnaire, I am going to include some examples in our testimony today.

The first major problem the controllers cited, controller shortage. The work force still sees a shortage of FPL and developmental controllers. Despite an increase of about 1500 FPL's and 400 developmentals in the three years between our surveys, this chart shows that about 85 percent of controllers in 1988 perceived a shortage of FPL's. Sixty-seven percent of the controllers saw a shortage of developmental controllers.

The trainees: In this category a substantial majority of supervisors and managers also said that the number of full performance level controllers was too low. Many of the managers and supervisors, but not as many as in the FPL category, also saw the number of developmentals as too few to meet future controller needs.

As a result of the shortage, contollers said they were limited in areas such as taking annual or sick leave or obtaining required training. One example—80 percent of controllers viewed their ability to take annual leave on short notice, two weeks or less, as moderately to very greatly limited.

One respondent told us:

> We have continued to staff at a bare minimum. My greatest fear is that during a very busy period one of my controllers will ask for help, and I won't have anyone available to help him or her.

Handling too much traffic: controllers say they are handling too many airplanes, but managers disagree. As this chart shows, in 1988, 65 percent of the controllers believe they typically handled more traffic than they should during peak periods. In marked contrast, managers believed only five percent of controllers handled too much traffic.

A near identical disparity existed in 1985. A majority of FPL's also believe they are working too long without a break. Again, managers disagree. Nearly 60 percent of full performance level controllers in 1988 viewed the typical time spent continuously working in air traffic control positions during peak periods as being too long.

Only seven percent of managers agreed. Once again, a similar disparity was evident in 1985. FAA believes it is desirable to have some relief periods away from the operational positions during the course of a work day, and in recognition of this FAA tries to provide controllers a break after spending up to two hours on the same air traffic control position.

However, as this chart shows, 32 percent said the controllers were typically controlling traffic in excess of two hours during peak traffic periods. Eighty-seven percent of controllers, which is the sum of the dark bars, had worked in excess of two hours on the scopes without a break at least once in the last month.

One controller respondent said:

> Some supervisors feel that working two hours on position, then moving to another position for one to two hours is a break. On one shift the first break by anyone, including physical breaks, was four hours into the shift.

I might add that FAA recently reached agreement with the controllers union such that "if *operational requirements permit*," controllers will receive a break after two hours, during which no other duties will be assigned.

Overtime: A very interesting picture on overtime in 1988, this is one area where there was a change that was consequential from several points of view. Controllers views of overtime provide two perspectives. One perspective, which is described on the chart, is a description of the actual situation at their facilities.

This chart does not show how much overtime the individual controller spent. A second perspective was a personal perspective of the controller on the amount of overtime they wanted to work. System-wide, the amount of overtime has decreased since 1985, but not without conditions.

In describing the actual overtime situation, this chart shows that 49 percent of controllers said too little overtime was allowed at their facility in order to provide sufficient coverage for controllers to train, take leave, and do other duties.

Only 12 percent of managers shared this view. Twenty-four percent of controllers said overtime assignment were appropriate. In contrast, 70 percent of managers shared that view. One supervisor commented that:

> Although overtime is really needed, especially during summer vacation time, we do not use it. We make due by working one or two FPL's short, by using supervisors and by using developmentals who are not yet radar qualified.

From their personal perspective, 38 percent of the controllers who worked overtime in this last year said they had worked more overtime than they wanted. In 1985, 46 percent of the controllers held that view. I might add, a slight dilemma here for FAA in that in responding to the question: Do you want to perform more overtime; are you willing to do that, only 20 percent of the controllers expressed such a willingness. But as you can see from this chart, the controllers, 49 percent of them, feel that too little overtime is allowed at the facilities. There is simply not enough bodies to go around.

Training: Another important area and one that is increasingly in need of attention is training. Controllers had very strong concerns about the quality of certain aspects of developmental training. Many supervisors and developmentals shared these concerns.

Facility managers generally do not. This chart indicates a majority of the FPL controllers, and many supervisors, rated the quality of developmental training as less than adequate or poor in such important areas as using back-up systems, controlling traffic in bad weather, emergency procedures, and holding patterns.

Most facility managers represented there over on the right-hand side of the chart, rated the same training as predominantly adequate to excellent. A near identical disparity was evident in 1985.

One supervisor told us that "We have on-the-job training instructors providing OJT when they barely can handle the job themselves."

A supervisor commented that most older journeymen controllers are burned out on OJT and the best candidates for giving the training are in-staff positions.

That leaves us with lower experienced controllers training developmentals. Two other points related to developmental training are also worth noting. First, 31 percent of the surveyed controllers said that the training involving live traffic before certification on position was insufficient.

Second, many FPL controllers expressed concerns about developmental attitudes and talents, such as overall skill levels. Forty percent of them expressed concern on ability to learn; 31 percent; work attitude, 45 percent. They said that these aptitudes were worse in 1988 than three years previously.

Morale: As this chart indicates, 43 percent of the controllers characterize their own morale as low. That is the dark bar. Only 4 percent of managers recognize controller morale as being low. In contrast, 29 percent of the controllers said their morale is high. The managers thought that way at the 56 percentile. Facility managers also did not accurately gauge supervisor morale. While 36 percent of the first line supervisors said their morale was low. Only 3 percent of managers saw it as such.

Again, that is over there on the far right. One supervisor explained that staffing is improving too slowly, that his area had actually regressed due to retirements and promotions; that employee input is not really being sought out and that budget constraints make permanent changes, station moves, practically impossible, and went on to point out that he saw drug testing being performed on a work force with no history of drug-related errors and accidents as professionally insulting.

Another supervisor said the FAA is back to where it was in 1981:

> Human relations is a joke. Upper management never bought the criticism as to their lack of the humanistic approach being a factor in the 1981 strike. Morale is at an all time low. Once the union gets on its feet, I can see the same confrontations taking place as we had with PATCO.

I know you will have union representatives on later today, and I imagine they can speak to whether that sentiment is prevalent or not.

Airline scheduling practices: The difficulty of a controller's job can be increased by the number of aircraft to be handled simultaneously, as when airlines schedule several aircraft to depart or arrive both at the same time.

One supervisor said the major problems facing the air traffic control system are airline schedules, the Hub system, and the inability to effectively regulate this traffic. He went on to say that they recognized the airlines are in business to make a profit, and that this is the most effective way to do so, but there are times during "pushes" at the hubs when the system teeters on the brink of being unsafe.

As this next bar graph shows, this is an area where there is a lot of agreement. Controllers, supervisors, and managers voiced very strong concerns that airline scheduling practices hinder traffic flow. All the groups also believed that airlines' use of hub hindered traffic flow. We also asked a set of questions about the communication performance of major airlines and general aviation pilots.

A substantial number of controllers expressed concern about the communication performance of general aviation pilots, but they rated very high the communication performance of commercial airline pilots.

Equipment: Controllers, supervisors and managers agreed that out-of-date hardware and equipment was a serious problem. In that respect, however, about two of every three controllers at the centers saw the introduction of FAA's new HOST computer as a positive factor in helping them do their jobs.

A controller said this about the equipment problems:

> Our equipment level is, in a word, prehistoric. We write our weather down on a piece of paper and place it on our scopes. It is inconceivable to me that at one of the busiest airports in the world we can't get the state-of-the-art equipment we so desperately need.

And a supervisor said:

> One of our biggest problems is radio equipment and coverage. They are old and fail way too often, and the back-up systems that we are forced to use give poor coverage.

This is totally unacceptable.

System safety: Controllers' overall view of system safety remained basically the same as in 1985. Most controllers and supervisors and all managers rated the overall safety of the Air Traffic Control System as good or adequate. However, some controllers, 16 percent, and supervisors, 8 percent, rated the system as poor or very poor.

I would like to point out one thing about this chart. In 1985 somewhat more controllers rated the system safety as excellent or good than the controllers did in 1988. There was a slight decline. It is the 52 percentile to the 48th. There was an increase in the number of controllers that rated the system as simply adequate. The poor or very poor category remained almost identical.

I might add the managers view on this issue was 96 percent rated the system safety as good to excellent. Only four percent of the managers rated it as adequate. None of the managers rated it as poor or very poor.

Now, we asked the controllers what factors they saw as hindering system safety. This graph indicates that on the basis of their observations, experiences and judgment, that a majority of controllers thought that the amount of traffic load, controller morale, the number of FPLs available, hardware reliability and software reliability, were the key factors that were hindering FAA's ability to maintain system safety.

A couple of comments from the controllers. One said:

> I have worked airplanes that I only had an idea of within ten miles of their actual location and that was due to target jumps and radar splits.

Another said:

> During thunderstorms I have seen sectors completely out of control. Too many aircraft. We have big sectors in this facility, but there have been sectors with 50 to 80 aircraft in them at one time all deviating. Safe? No way.

We also asked the Flight Safety Foundation to evaluate our '88 questionnaire results and provide its views on the safety of the ATC system relative to its 1984 use. According to the foundation, the most striking result of its comparison of the '85 and '88 GAO reviews, was the similarity of the responses. Although there was some minor shifting of emphasis and areas of concern, conditions within the work force appeared to have changed very little and the '88 responses offered no basis for them to alter its 1985 assessments of safety.

The foundation concludes, as it did in 1985, that the system is not unsafe, but the margin of safety is less than desirable. The foundation also pointed out that a substantial difference exists between the controllers views of their morale and working conditions and facility managers view of those same factors. The foundation views this as evidence of a continuing communications gap between FAA facility management and the controllers.

Further, since the strike, there has persisted a vast difference between the perceptions of managers and those of controllers regarding morale and working conditions. That, in the view of the foundation, is a significant contributor to a less than desirable margin of safety.

This year we want to emphasize that there are differences between facilities. There were differences between facilities in 1985, too. We know at GAO a lot more about the system than we did in 1985 and are convinced of the importance of focusing on individual facilities. I wanted to stress today our survey results represent the composite views of the work force at FAA's 64 largest terminal facilities and 20 centers in the contiguous United States.

The results can and do vary between centers and terminals and differences exist between centers and individual terminals. The Flight Safety Foundation——

Mr. MOLINARI. Would you yield for a moment?

Mr. MEAD. Yes sir.

Mr. MOLINARI. In the differences that you have observed—I hate to interrupt your testimony, but I think it is important—will you be able to advise us priority-wise which of the facilities rate very poorly and those who rate very well? In other words, at some point in time can we get from you a rating numerically of the various facilities of those that are considered good as well as bad?

Mr. MEAD. We structured our survey instrument and structured the sampling plan that we had for the 84 terminals and centers so that we would be able to do that. We are, as the next step in our work, we will be doing that, drawing cuts on individual facilities. We had that capability in 1985. We did not however publish the results, the variances between individual facilities. We think it would be healthy to publish the results this time.

We will be able to rank order the facilities on the basis of their responses to a set of core questionnaire issues like morale, handling too much traffic, how long were you on position, training, and issues such as that. So the answer is yes.

There is one of the 84 facilities in the country where the return rate was not sufficiently high to allow us to do that.

Mr. MOLINARI. That would be very helpful. Thank you.

Mr. MEAD. The Flight Safety Foundation, from the review of their results, concluded the conditions at overall terminals appeared to have worsened more than at centers in certain areas, namely, high traffic areas, work load, personnel shortages and equipment. In the view of the foundation, terminals merit FAA special attention to ensure that performance and safety aren't degraded as traffic levels continue to increase.

Further, controllers' views on the questionnaire vary between individual centers and individual terminals. For example, Washington and Boston Center controllers expressed more concern about the working conditions than did Minneapolis and Albuquerque Center controllers in such areas as air traffic handled, time worked on position, controllers staffing, safety and morale.

Similarly, for those same areas, the Phoenix TRACON and New York TRACON facilities expressed more concern about their working conditions than did the Jacksonville and Fort Lauderdale terminals.

As I indicated, Mr. Molinari, we plan to publish the results of a complete system analysis on the 84 facilities.

Mr. Oberstar walked in, and I want to testify on human relations and modernization initiatives. Many of those are of very recent vintage and they are important. Why are they important? They seem to get at at least some of the root problems facing today's Air Traffic Control System. They include, among other things, the recruitment, hiring and training process.

In 1988, FAA streamlined its hiring process for air traffic controllers and over time this should reduce the time it takes to hire the controllers. As I indicated earlier, they have been taking, as we indicated in a report to Mr. Oberstar, 12 to 18 months simply to hire one of these people, not to get them so that they are experienced in running the scopes, just to get them through the academy.

FAA has put some measures in place that for high quality applicants they may be able to bring them on board within 45 days. The FAA administrator has also announced a series of long-term and long-overdue initiatives that include training professional instructors, using the state of the art training technology and redesigning the traffic curricula.

Now, where modernization initiatives have come to fruition, such as the HOST computer, the controllers have noticed—that showed up in our questionnaire results. But we should all recognize the HOST computer is but one of the 12 major national air space system plan modernization initiatives. The rest of those initiatives I don't think you will be seeing them implemented until well into the 1990s.

More importantly, though, FAA has yet to come to grips with what we see as a major problem, almost a disease. It is a perception gap between facility managers and the rest of the work force. Until that gap is closed, the human resource efforts at FAA, the scores of initiatives that were announced last year under impact '88, are almost certainly not likely to produce the results that FAA and the aviation community wants.

In summary, Mr. Chairman, the result of our survey show how the people who control air traffic view the relative health of that system. Controllers in particular see problems in many areas that facility managers simply do not acknowledge. Despite the facility managers response, FAA headquarters has recently recognized the need for improvement and has planned or undertaken initiatives. But they will require time to bring about changes. Once again, those initiatives have not bridged the perception gap between the managers and the controllers. That gap must be addressed.

Finally, we believe the survey data offers considerable potential for use by FAA as a management tool. Both for systemwide and facility specific analysis. This survey was a major investment by GAO and we would like to see the results of it used throughout the air traffic system. So, as I indicated earlier, in the next step of our work, we plan to further analyze the specific facilities to express the concern about the working conditions such as traffic volume and safety and by focusing on individual facilities we hope to provide FAA with this facility specific data to help it close the gap its facility managers and controllers have, and then to go on to address the specific causes for concern.

Mr. Chairman, that concludes my statement and we will be happy to answer any questions that you or the subcommittee members may have.

Mr. ANDERSON. Mr. Mead, since you completed your survey, has the FAA undertaken any actions or has anything happened to alter the conclusions in your report.

Mr. MEAD. Nothing has happened to alter the conclusions in our report. I would say over the last year, year and a half, that FAA has announced, and in some cases begun to implement a series of initiatives that seem to go to the causes of some of these problems. If those efforts are seen through, we think they will provide the potential for some success.

I would note that this past year FAA came up with this action plan at Chicago, and I don't know exactly what the results are now in Chicago, whether that action plan worked, but we think it was good for FAA to take on this action plan.

Mr. ANDERSON. What input did the FAA give you in devising questions for the survey?

Mr. MEAD. We asked for the views of FAA on our questionnaire. They gave us 20 pages of comments on our questionnaire. We tried to accommodate as many of them as we felt would retain the comparability of the questions asked in '85 to the questions asked in '88, and we found a number of their comments helpful. They did not want us to ask questions about controllers burnout. They did not want us to ask questions about rehiring the fired controllers and we did not.

They did not want us to ask questions about morale because they thought morale was very substantive. Well, we agree, it is substantive, but we still believe—and we think most people that prepare survey instruments would concur in this—that the indication of morale in any work force is a relevant indicator of how the work force feels about its working conditions and so forth.

FAA did give us a question with several subcomponents and they were basically oriented toward things that FAA thought may have helped the controllers since 1985.

Does anybody want to amplify on that?

Mr. **Barchi**. As Ken has mentioned, Mr. Chairman, we did ask for specific questions from FAA to incorporate in our questionnaire. They provided us with one question.

Mr. **Anderson**. One question.

Mr. Mead, did you have any meetings with the FAA between the time you distributed the survey and the time you analyzed the results?

Mr. **Mead**. Yes, we have.

Mr. **Kredatus**. Mr. Chairman, I would like to answer that question. Actually, we have had a series of meetings with FAA throughout the last year and a half. The primary purpose of our meetings is to get an understanding of the actual data surrounding some of the questions, and we have met continuously with air traffic, who I might add, has been rather helpful in giving us all the information we requested, so that we could continue to pursue this effort of relating the actual data to the specific facility questionnaires that we are going to address in the next portion of our review.

Of course, we did give FAA I think around two weeks ago, a briefing on the entire results of the questionnaire, which lasted approximately two hours.

Mr. **Anderson**. Could you describe for us the exit briefing that took place at FAA; who was there and what was the general reaction to your report?

Mr. **Kredatus**. Again, Mr. Chairman, as the person who conducted the briefing, I think in a word, my reaction was disappointing. However, I would like to explain a little bit further. I actually had a series of three reactions:

The first reaction was, as you can imagine, anybody presenting this data that you have seen here today might react to bad news, FAA's reaction was negative in the sense of they felt at first that it was a reflection of an opinion poll and not necessarily a reflection of the reality that they saw happening at some of their facilities.

The second reaction that I had was when we concluded the briefing, we told FAA of our plans to pursue the conditions that you have seen here today at individual facilities and welcomed the opportunity to explore with them jointly and use their data to relate the actual situation to these opinions that we have heard expressed by the work force today. And their reaction was one of silence. That was the second reaction.

The third concluding reaction actually occurred subsequent to the exit conference in which we had a series of calls from senior management at FAA expressing what I think is an effort on FAA's part to work with us and to explore how we both might get into this next phase of our work together and explore the necessary corrective action to get on with the job of closing the perception gap that we identified for FAA.

Mr. **Anderson**. Mr. Kredatus, you must have been looking at my notes here, because you answered my next question. I had asked you what was the general reaction to the report. You said you were disappointed. My question now, Mr. Kredatus, is after having spent so many months on this project, what is your reaction to the FAA's response? I know you already said you were disappointed, but I thought maybe you might elaborate on that just a little bit.

Mr. **Kredatus**. Well, as an auditor who conducts work, I guess I would like to believe that the results that I present would be acceptable on face value. I guess my experience leads me to believe that there is always, whatever agency you are dealing with, a certain amount of questioning, certain amount of apprehension, but hopefully, once the agency has an opportunity to think about the data that we have developed, that they can move forward and get on with the job of correcting the problems.

Mr. **Anderson**. My final question, Mr. Mead, or Mr. Kredatus, or anyone, does the FAA reaction to the report give you concern about the safety of the system?

Mr. **Mead**. I think it does give me some concern. Not that the system is unsafe, but what the FAA is willing to settle for as an acceptable level of safety. It seems to us that the survey results represent an important compilation of the views of the people in whom we really entrust our lives on a daily basis and that they will be a very useful management tool to FAA. I would hope that FAA will seriously use the questionnaire results this time around in analyzing conditions at individual facilities.

Mr. **Anderson**. Mr. Molinari.

Mr. **Molinari**. Yes. I would like to pick up where the Chairman left off, on the issue of safety, which, of course, is the all important issue. We go round and round and round about this question. In my travels again to the various facilities, I have talked to many controllers, some supervisors, who expressed strong opinions that indeed the system is unsafe. When you hear that and you hear it repeated from time to time, obviously it raises your concern level.

Now, the Flight Safety Foundation has stated that the system, this report is relatively unchanged from the earlier report three years ago and as I recall, the Flight Safety Foundation said back in '85 that the system, while safe, was less than what it was in 1981 before the strike or about the time of the strike.

The question really that I have to ask of this panel is when, at what point, and what criteria would you use in order to reach a conclusion that a system such as ours becomes unsafe?

Mr. **Wood**. That is a tough one, of course.

Mr. **Molinari**. I know it is a tough question, but it is one we have yet to answer.

Mr. **Wood**. When we deal with the issue of safety at the foundation—I am sure others in the safety area deal with it the same way—it has to be a philosophical assessment. You can't quantify it. What we talk about at the foundation in terms of the margin of safety is if you imagine a horizontal line and you label that as being safe and anything above that is safe, it means that from that point on there is nothing you can add to improve the situation.

Down below, some distance below, you have another horizontal line and parallel and you label that unsafe. Between the two lines is the margin of safety, the pad that you have for undesirable events occurring. Things that happen in that band that affect safety, determine whether you are operating hypothetically near the top or the safe line or near the bottom, which we have defined as unsafe.

The safe line realistically is unachievable, but anybody in any area that involves safety would like to operate as closely to that top line as possible. So when we talk about margin of safety being less than desirable, we are seeing many factors entering into, in this case, the Air Traffic Control System, that are red flags in that margin and they are happening frequently enough that we feel that the system is being operated lower from that top line than is desirable from our standpoint.

The more things, the more issues that are in fact red flags saying look at this, look at that, it is happening frequently, too frequently, the more instances like that that you see, the more you have increased the probability for your exposure to risk and probability for a undesirable event to happen.

Mr. MOLINARI. Okay. Now, let's pick up on that then. Could you identify for us some of those things that you call red flags?

Mr. WOOD. The red flags that we see in Air Traffic Control System are the ones that GAO has determined from their questionnaires. They are still on the board over there.

Mr. MOLINARI. Let me interrupt then for the sake of saving time. If you had to pick out one item from what GAO has testified, what you would consider as the most serious of those raised by GAO, which one would you pick?

Mr. WOOD. I think the lack of communication. The reason I pick that one is because, as you know, the Flight Safety Foundation—and I was personally involved in 1981 looking at the system safety after the PATCO strike and I personally was involved in GAO in 1985 and again in 1988, and I see this as a common thread. I think that the fact that the controllers, the alleged fact the controllers are not getting their message across to top management, are not seeing their problems, which they are perceived or real, they are not seeing them addressed, and it is creating a continuous frustration for those controllers to keep working, which in my mind has to have an effect on the efficiency of their operations when they are controlling traffic.

Mr. MOLINARI. All right. Then earlier this year FAA decided to revoke its contract with FU Associates and Flight Safety Foundation to develop a system of aviation indicators that would define the safety status of our nation's air transportation system. Could you explain why, or FAA's reasoning for revoking the contract? Of course, I will ask FAA that same question.

Mr. WOOD. The letter we got from the FAA contracts people specifically stated that the reasoning behind the termination of the contract was lack of funding and did not reflect on performance of the parties involved. It was further stated at our termination meeting with the contracts people that where they again emphasized several times that it was not a lack of performance but a lack of money, that they did intend to continue that effort in-house where they could do it at a lesser cost. But they weren't going to let the program die.

Mr. MOLINARI. I am concerned about in-house studies as opposed to having outside consultants. I think when you have outside consultants necessarily you remove at least the possibility of bias that might exist, a problem that we have had historically. Can you give us an idea as to what it would have cost? Did you have some terms that you discussed in terms of dollars for that contract?

Mr. **Wood**. As I recall—I think I will let Wojcik address that, because he worked directly on the project.

Mr. **Wojcik**. For the six months or so that we worked on the contract, the total value of the contract was on the order of a half a million dollars. It became apparent to us during the course of that contract that what we were dealing with was something that would require extended research. It was developing quantitative indicators for the entire air transportation system, a really a brand new area. Although there are precedents for indicators of system safety for other types of systems, the effort would require commitment over a period of time.

Mr. **Molinari**. Did you develop any preliminary data in terms of system indicators?

Mr. **Wojcik**. Yes, we did.

Mr. **Molinari**. Would you mind telling us what those indicators were?

Mr. **Wojcik**. Okay. Our first attempt at developing indicators was to examine the literature concerning quantitative measures that related to safety of the Air Traffic Control System. We approached this by defining several safety management goals for the Air Traffic Control System and attempted to identify existing quantitative indictors corresponding to those goals.

These would be measure that are already being made by the FAA and other organizations. We eventually recognized that this approach has limitations and we acknowledged those and made a couple of other efforts to look at what, how we could go further than that.

We began looking into the idea of actually attempting a probablistic assessment for the entire system to identify the places in the air traffic control system where the problems are the greatest.

Mr. **Molinari**. Well, now, I think we are getting into a very, very important area, because all of us that sat on this committee and the parent committee, and other committees in Congress that dealt with this subject have been looking for years for the proper safety indicators.

I have seen, witnessed the experience, for example in 1984, when it appeared near mid-air collisions statistics were going down. FAA at that time was proudly pointing to those and saying, see, this is proof that the system is getting safer. Then this subcommittee did investigate and we found out there was a serious problem with reporting going on at headquarters and when they corrected that problem 1984 was a record year, broken in '85, broken in '87, and FAA said no, you can't look at those any more. They are the system indicators at all of safety.

So we were puzzled. I think the time has come when we need somebody outside of FAA to tell us how we can accurately gauge the system, the safety of the system, and whether it is increasing or decreasing, so we can take measures to address that problem.

One last question so that my colleagues have a chance, and then I am going to come back and ask some more.

If you were to go into a contract with FAA, could you give us some indication as to how long it would take Flight Safety Foundation to conclude a report that would, in fact, establish some safety indicators and what the estimated cost would be? I know that is a tough question, but even if you can give us a ball park figure I think that would be very, very helpful, because that is something we might want to—certainly I—would want to play a hand in.

Mr. WOOD. I would like to, before I comment I would like to comment on the work that has been done here, my description of the margin of safety, the GAO information. We have right here the basis for a look at safety indicators or more appropriately, risk indicators, and I hope that this information is utilized by the Safety Office of the FAA, who is continuing the safety indicators contract, or program, rather.

This is the type of information, at least we at the foundation, envision in being in such a program which would allow you to computerize the information, access it periodically, see where the red flags are, ask the computer to define the question as far as you needed to, to then say this is a problem, this is not a problem. If it is a problem, you address it. You take a pro-active role in safety and not a reactive role.

Mr. MOLINARI. Now, I am going to close this round of questioning by reading the comments of a controller that was included in the survey made by GAO. I agree with what you just said, Mr. Wood. The thing that bothers me is what they are saying today is essentially what they said three years ago, and if they have ignored what the report said three years ago, we have nothing to suggest to us that FAA is going to do anything different from here on in, except the ability and power that we have to force that change. But this is what one controller said. It is troubling me:

> Morale is horrible, traffic is intolerable, management insensitive. We are overworked, understaffed, and abused. We even have a supervisor who says you can't stand up to relieve the tension and ache after spending two and a half plus hours at a sector by yourself without any help. We have been told to reduce overtime. Equipment is horrible—

This is the part that really bothers me—

> worst of all, nothing will change after the survey. Too bad.

I have heard that repeatedly throughout the country by controllers I have talked to and some supervisors, and one or two honest facility managers. That puts us into a position where we have responsibility on our shoulders to try to implement the kinds of things that GAO is telling us to do and what the Flight Safety Foundation is saying.

I would stop at this point and give my colleagues an opportunity. Thank you.

Mr. ANDERSON. Mr. Borski.

Mr. BORSKI. Thank you, Mr. Chairman.

Gentlemen, I have one question on the survey itself. What is the normal rate of response to a survey? Is there such a thing?

Mr. BARCHI. I am not necessarily sure there is a normal response rate, sir. Our experts in GAO that helped design the questionnaire suggested to us the response rate that we received—roughly 80 percent—was "exceptional." That has been consistent. We had an extremely high response rate to our '85 survey as well.

Mr. WOOD. I could add a little bit to that. In our experience at the foundation we have done surveys in past questionnaires of various types. If we see ten percent, we are very happy.

Mr. **Borski**. That is what I thought. Eighty percent seems incredibly high to me. Is there any margin of error?

Mr. **Mead**. Yes. At the terminals we did a universal sample, that is everybody. What was the response rate there, about 80 percent?

Mr. **Kredatus**. Yes, I think so.

Mr. **Mead**. The centers, because they have so many more people, we did a stratified sample. Those were stating with confidence for the centers the 95 percent confidence level, plus or minus 2.5 percent. That is very high.

Mr. **Borski**. So there is very little doubt this report is very, very accurate?

Mr. **Mead**. Exactly.

Mr. **Borksi**. I have a question. In your testimony you stated that 29 percent of the supervisors were eligible to retire. Did you determine how many FPLs were eligible or would soon be eligible?

Mr. **Kredatus**. Yes, I did. Actually, the 29 percent is FAA data on the number of supervisors that were eligible. Similarly, FAA data shows that five percent of FPLs are eligible to retire. Now, I might point out that it is important that retirement rate can and does vary by facility.

For example, there are, as I recall the data, seven facilities that had an FPL retirement rate in the range of 10 to 20 percent and there were 32 facilities that had supervisor retirement rate that ranged from 30 to 100 percent. So again, averages have to be taken carefully here because results can and do fluctuate.

Mr. **Mead**. The problem with the substantial retirement eligibles at the supervisory levels, of course, is the FPLs, who are already somewhat behind where we were at the close of fiscal year 1988, they will be the ones that get promoted to be the supervisors.

Mr. **Borksi**. That was my next question. If all the supervisors retired who are eligible, all the FPLs who are eligible retired, all the FPLs who are needed to move up to supervisors, what would that do to the system? These are people who are eligible, not what can happen in a few years, if tomorrow they decided to do that.

Mr. **Barchi**. It would be a major setback, quite simply.

Mr. **Borski**. If the margin of safety is currently less than desirable, what would you call it if all those folks retired?

Mr. **Barchi**. A lot less than desirable.

Mr. **Borski**. When does it become unsafe, ever? This is not the survey I am talking about.

Mr. **Wood**. I think it becomes unsafe when the probability for a catastrophic event is very high. When you would expect something to happen at any time you are operating very near the unsafe line, and maybe at the unsafe line.

Mr. **Borski**. It seems to me we are very close to that now. Would you agree?

Mr. **Wood**. Again, it is philosophical assessment. You can't quantify it. I don't know how close we are to the unsafe line. I did make the statement that the system was not unsafe and I would stand by that. We are not at the unsafe line. We are somewhere between, hopefully not too close to that unsafe line.

Mr. **Borski**. Gentlemen, you had suggested you would give us at some point in time the individual terminal's responses. Do we have any idea when that may be available?

Mr. **Mead**. Later this summer. I have got some information here on the facilities that are named in the statement. If you are interested in the Q and A period today, I will be glad to give you those. We are going to take a shot at Chicago within the next two or three weeks and we want to publish the results, I would suspect, this summer, again to FAA so that they are timely.

Mr. **Borski**. Thank you. Could I ask you, on the chart to my right, could you tell us what were the five most frequently cited problems in order?

Mr. **Mead**. The hinder safety problems were amount of traffic work load——

Mr. **Kredatus**. We have a chart that actually summarizes the work force's views on the most serious problems facing the system, which is different than the factors that hinder system safety.

Mr. **Mead**. I guess our question was were you interested in the five top for safety or the five top for all over?

Mr. **Borski**. For safety.

Mr. **Mead**. That is that chart. I believe these are rank order, amount of work load, controllers morale, the full performance level shortage, hardware reliability, software reliability, and then the developmental skill level.

You can see another thing interesting about it is there is some similarity between the controllers and supervisory views, but it drops off when you get to the manager category.

Mr. **Borski**. Mr. Wood, Mr. Wojcik, would you please describe your background for the record?

Mr. **Wood**. I am an aeronautical engineer, was four years in the Air Force as flight engineer, worked for Boeing Airplane Company in Seattle as a flight test engineer, worked for the Navy as a civilian as an aeronautical research engineer. I was safety investigator for the Bureau of Safety of CAB, which evolved into today's NTSB. I held various positions at headquarters FAA in safety and engineering, and for the last nine years, I have been Director of Engineering for the Flight Safety Foundation.

Mr. **Wojcik**. I have a doctorate in engineering and public policy, and I have worked for a year at the Flight Safety Foundation. I have also had experience at the Office of Technology Assessment of the Congress, and I have worked for a number of years at the Mitre Corporation, which is a major FAA contractor.

Mr. **Borski**. Gentlemen, could you please describe the mission of the Flight Safety Foundation?

Mr. **Wood**. The Flight Safety Foundation is a nonprofit 501(c)(3) organization of international scope. We are membership supported. We have most of the air carriers in the free world as members, and we have many of the corporate operators as members.

In addition, we have learning institutions who are members. We have offices of FAA and NASA as members of the organization and we have some libraries who are interested in our publications.

Our mission is as a safety exchange organization. To explain that a little bit, the organization was started back in 1946 right after World War II, when the airlines got back into civil airline business other than military contracts. They were operating essentially the same equipment, however, the competition was so fierce that there was very little, practically no exchange of information. If one carrier was having a problem, he would not make that known to the other carriers for competitive reasons.

The founders of the Flight Safety Foundation felt that there should be a body where those safety incidents could be identified and presented to the other people in the field without damaging anybody's reputation. That was the initiation of the foundation.

In the subsequent years the airlines have grown. Many of them have their own safety departments. However, they still felt a need for the foundation's safety exchange medium. We do seminars, an annual international seminar for the more—directed toward the airline constituents, and we do a corporate safety seminar also, and annually, and in between, we do many workshops around the world on safety items.

We are supported by our membership to some degree. However, when we see that a technical project or effort has the potential for resulting in a safety study which will be of benefit to our constituents, we will undertake that work under contract, and as an example, we worked with GAO in '88 and '85.

Mr. Borski. Would you briefly tell us about the evaluation of the Air Traffic Control System that the Flight Safety Foundation conducted in 1981, at whose request was the evaluation conduct and what were the findings?

Mr. Wood. That study was—the PATCO strike was, I believe, on August of 1981. We started a study for the FAA for then Administrator Lynn Helms. The FAA felt they had made corrections to the Air Traffic Control System in the absence of those striking controllers and felt the system was safe with what they had done. But they said, Flight Safety Foundation, you look at it independently and let us know what you think. And we put together a 16-member task force.

We did our look a little differently than GAO. Whereas we did not use a questionnaire, we divided up the country and went around the country, talked to controllers, first line supervisors, facility managers, regional people, and headquarters people directly.

The results in our view were that, yes, what you have done has made the system safe, and what they did was they put supervisory controllers back to work in traffic. They had military assistance. They brought in some military controllers to help out, and the big thing they did was put a restriction on traffic.

We said, yes, the system is safe with those corrections. However, we have recommendations, and we had some dozen or 15 recommendations. An important one was that we, the foundation, felt that they should not lift the cap on traffic or should lift it only as they acquired capable controllers to handle the traffic that would result from the increase.

The FAA chose not to continue with that and removed the cap entirely some months after that. Our recommendations did address the problems of lack of communication that FAA—you have got a good system going there, but the people are concerned.

The people who stayed, many have the same concerns as those who struck. But they, realizing it was illegal to strike and because of their dedication, they did stay, but they had the same concerns. And they were, as they are now, lack of communication, morale, equipment, which is older now than it was then and so on.

Mr. Borski. In your opinion how did the margin of safety in the system change between 1981 and 1985?

Mr. Wood. In my opinion the system, the Air Traffic Control System was as safe as I have ever seen it immediately after the strike in 1981 because those people who stayed were dedicated. They were determined they were going to make the system work. There was an esprit de corps that I never saw before.

By the way, when we did our study in 1981, in order to get around the country we road jump seat on airlines so that we could get the viewpoints of the flight crews also, but as I was saying, there was an esprit de corps.

There was good relationship between pilots and the air traffic controllers. There were direct routings being given which weren't being given before the strike and so on, so I think the effort in 1981 was quite good.

When we worked with GAO in 1985, we saw a deterioration. We felt, in the situation, in that problems that we, the foundation addressed in our report, were not being addressed by the FAA where the controllers were concerned. And with the response to the GAO questionnaire in 1985, we saw many of the same things that we heard first hand from the controllers in 1981.

These are the problems. We hope our staying is going to get some attention for these problems and so on. Well, in 1985 we had the feeling that the attention wasn't being given, and of course again in 1988 we have the same feeling; that those problems are still not being addressed adequately.

Mr. Borski. Thank you very much. Thank you, Mr. Chairman.

Mr. Anderson. Mr. Duncan.

Mr. Duncan. I have no questions.

Mr. Anderson. Mr. Mineta.

Mr. Mineta. Thank you very much, Mr. Chairman. I commend you for your leadership on holding these hearings on the status of our Air Traffic Control System. First of all, let me go over on page 3 of your statement where you have as of September 1988, 14,437 air traffic controllers as compared with 16,244 prior to the strike.

Mr. Mead, I am just wondering, if you go to chart 1 of your testimony, I am just wondering whether in that statement on page 3, whether we are comparing apples and apples. If you compare that statement on page 3 and look at chart 1 of your controller work force and compare the number 14,437 to the 16,244, I am wondering whether or not you shouldn't be comparing the 16,436 to the 16,244 rather than the 14,437 to the 16,244.

Mr. Mead. They didn't count back then the first line supervisors.

Mr. Mineta. Now are there first line supervisors in that regard doing any air traffic control work as such?

Mr. Mead. Yes.

Mr. Mineta. So why would they not be counted then as part of the air traffic controller work force, so that you can say, yes, we have 16,436 today as compared to 16,244 on the third of August of 1981.

Mr. Mead. Yes. Well, as you know, Mr. Chairman, this definition of the controller work force has changed dramatically over the years. I think it was just a little under two years ago. I would defy anybody in Washington to say how many controllers there were.

We had clerks in there, anything that moved.

Mr. MINETA. I had an argument with the Secretary of Transportation at one of my own hearings about that very specific subject and took issue with Secretary Burnley about how they were counting. I see Mr. Potts is nodding his head in agreement, if I might point that out, in the audience.

Sorry to acknowledge your nodding of the head, but in any event I had a very strong——

Mr. POTTS. I only acknowledge the encounter.

Mr. MINETA. You only acknowledge the encounter. In any event, I know what you mean. The definition of FPL has also changed from what it was on the 3rd of August of 1981. I just wanted to clarify in my own mind this statement on page 3 in terms of comparing the numbers.

It shows a dramatic difference as far as page 3 is concerned, but at least looking at your chart 1, to me I know we don't have enough, but it is not as dramatic, I think, as shown on page 3. The other thing I would like to touch on is throughout your report we have a great survey, as Mr. Borski indicated, 80 percent return, which is phenomenal.

I am in the insurance brokerage business. When we send out direct mail, if we get 2 percent back, I mean that is considered a good response on a direct mail solicitation. On a questionnaire I understand it is different, but still to get an 80 percent response back is very, very high.

The thing that bothers me throughout your report, however, is the perception of the controllers saying one thing and managers saying another. That was the same in 1986.

Mr. MEAD. Yes, sir. The survey actually was conducted in 1985 and we reported on it in 1986. Yes, that is exactly right. It is a phenomena that we think of is the heart of the problem here. I don't have the background of the Flight Safety Foundation, but I feel when I get in an airplane and I entrust my life, in a sense, to the pilot and to the air traffic controller, and when I want to know whether this air traffic controller is handling too much traffic, I think that air traffic controllers' view is entitled to a great deal of deference, and if we are going to come to grips with that problem, the facility managers simply must acknowledge that to be the case.

If 65 percent of your work force feels that they are handling more traffic than they can appropriately handle and the managers at the fifth percentile feel that way, I think we have a problem. It is going to take a long time to come to grips with that issue if the people that run these places don't acknowledge the problem.

Mr. MINETA. Now, that was true whether you are at a certainty, TRACON or Tower in terms of how they felt about that?

Mr. KREDATUS. Overall that 70 percent—it was 70 percent saying they handled too much traffic in 1985. It went to 65 percent in 1988 overall. On centers, the figures show that controllers aid 75 percent from adding these things correctly very quickly. Seventy-five percent in 1986 said they were handling too much traffic. Again, compared to 65 in 1988 at centers, at terminals the picture was in 1985, 61 percent saying they handled too much traffic. In 1988 that figure increased to 65 percent.

Mr. **Mineta**. Now, can you take that center or the terminal, rather, and then isolate to maybe Atlanta or DFW, Chicago, LaGuarida or to New York and then come up with a specific one on terminals?

Mr. **Kredatus**. Absolutely.

Mr. **Mineta**. Now, but then there isn't some improvement that has been made, then, since the percentages decline in 65 as they relate to TRACON and to en route centers, so there must be some improvement being made as to how the air traffic controller is looking at the work they are doing.

Mr. **Kredatus**. As Mr. Mead indicated earlier, we do plan to take a part for certain key questions, and handling too much traffic is one of those questions.

The specific response rates for each of the 64 terminals that were included in our review, as well as the 20 centers, and we will be able to see those facilities where the controllers were saying that they were handling less traffic, for example, than certain averages and so on.

There is definitely a difference between facilities.

Mr. **Mead**. In fact——

Mr. **Mineta**. Probably no one flies more than the Chairman of this committee and I, maybe 200,000 miles a year, getting on that silver tube. We go out to our districts in California four weekends a month.

We put ourselves in that position of saying, okay, here is our body, take us there. Now in your exit interviews in 1984-1985 as compared to 1988, what was—well, let's take 1988 alone.

How do you feel about what your exit interview with the FAA? What was their attitude about the work you did in 1988? Did they sort of—were they defensive? Were they saying, yes, there are areas in which we have got to make improvements? We are working on this, and yet there are some improvements evidently even from an air traffic controller says in 75 percent 1985 they work too many ours.

Now in 1988 that has dropped to 71 or 65, whatever the figure was that was given to us.

Mr. **Mead**. I think initially there was some defensiveness. Over the time since the—I think FAA is intensely interested in the results of this questionnaire. I think they are prepared to acknowledge that controllers responded the way they did. Whether that means that FAA is going to move out forcibly on what their controllers told us, I think is another story.

I think the cards are in on that. Over the last several days we have talked several times with senior FAA management, and they have indicated that they want to—that they will find the results of this survey useful, along with the many other data points that they have over there and I think they will be addressing that today. I have learned, Mr. Mineta, in dealing with FAA, especially over the last year and a half, to wait a while before you really understand what actions the agency is going to take.

Mr. **Mineta**. Let me just touch on one other area very quickly, Mr. Chairman, and that is the whole issue of the pay demonstration project. It seems to me a lot of what gets done here points to morale, and the fact that once the pay demonstration project was announced, a lot of people were willing to put in for transfers to do—to go to another area, but now because of the Appropriations Committee's actions, I guess—I know in talking to our western regional director for FAA, he is very, very concerned about the fact that the monies are not going to be forthcoming on the pay demonstration project.

I was wondering were you able to hone in on that subject as it relates to morale, the ability to give FAA management the flexibility to move and for the choice of individual air traffic controllers to make that choice to move somewhere?

Mr. KREDATUS. The pay demonstration project is an area of concern. We have talked to the union about it. We talked to the supervisors about it, and they remain optimistic that in fact something will be done to try to get controllers at hard-to-staff facilities. Whether there is enough money this time around. We are not sure what the final disposition of that action will be, but certainly those folks need help at certain facilities more than others.

Mr. MEAD. We didn't ask the question in our survey about pay. You might address later to FAA the question about pay. They had a job session type survey where they asked questions about pay. I might add, I have heard some reports that some people actually moved.

Mr. MINETA. On the basis that they were going to get help under the pay demonstration project and now they are not going to be getting the monies?

Mr. MEAD. Yes. And so that is an indication that while we are talking a lot about what FAA does or does not do today, there is an example of where the agency did come forward and recommend a pay demonstration project. It was worked through OMB, and so forth, and it came to the Congress and some people——

Mr. MINETA. One of the specifics I will probably be asking about, maybe FAA can start looking at it, but as I understand it, the pay demonstration project included the Oakland TRACON, and has now been delisted, and this has created a real problem there, as well as in the LA area. So maybe, Bob, sometime between now and when you come up, you can have that looked at because I really think the Pay Demonstration Program is something that we ought to put into place.

I have been pushing it. I know FAA would like to do that, and I think we have got to make sure that the monies are there for that program. Flexibility, I think, gives us the ability to increase productivity, and I think just the very simple figures you gave us will reflect or de-reflect, Mr. Kredatus, some of that morale improvement just because at least there is some hope that there may be some monies there.

Well, again, let me thank you very, very, much for your work on this survey. We are really interested in hearing FAA's response to your work.

Mr. MEAD. I didn't respond totally to one of your earlier questions. I wanted to give an example of your saying that, well, there must be some differences between different facilities, and we were talking about how we were going to come out with all the facilities that were covered in our survey, including the ones in California.

We named several in our testimony to illustrate the point of how important it is to focus on individual facility factors. Take the Fort Lauderdale terminal, the Fort Lauderdale terminal in response to the question about handling too much traffic, around 25 percent of them there, compared to the Phoenix TRACON which was 90 percent.

In comparing centers, compare Washington Center to Minneapolis Center. Washington Center controllers rated safety overall there, said it was poor or very poor, 37 percent of them. Compared to Minneapolis with 4.2 percent of the controllers there, so I think that pretty graphically illustrates the importance of focusing on individual facilities.

Mr. MINETA. Now is that reflective of the management?

Mr. MEAD. Those were the controllers' views.

Mr. MINETA. No, but is that because of work load or because there was a good relationship between management and the air traffic controllers?

Mr. MEAD. Well, we have to examine also where the managers came out at these individual facilities.

Mr. MINETA. If you have a Bull Connor and they only give 4.2 percent, that is great. On the other hand, maybe because they do have a Bull Connor, somewhere it is at this 70 percent, you know, that I have got a management problem.

Mr. MEAD. Well taken. The Minneapolis—at Minneapolis only 19 percent of the controllers said their morale was low.

Mr. OBERSTAR. Would the gentleman yield?

Mr. MINETA. Especially when it comes up to a Minnesota question I am always willing to yield to my very fine colleague and Chairman of the Aviation Subcommittee.

Mr. OBERSTAR. I think it is instructive and the gentleman has asked a very important question and the responses are important, but I think it is instructive to find out what happened at Farmington and that Minneapolis Center. There was nearly a 100 percent walk-out. I think it was 99.9 percent walk-out at that facility in the strike of 1981, so they have had virtually 100 percent replacement of controllers.

The FAA has also seen to it that whatever the staffing standard is for Minneapolis Center that the strength of that center has been 100 percent, so they have all positions filled, and they have a very high number of FPL's at that center. So they have worked very hard to assure that there is a fairly high degree of morale at that center.

Mr. MEAD. That shows up across the board in Minneapolis figures.

Mr. OBERSTAR. What you have is a company union there. I thank the gentleman for yielding.

Mr. MINETA. Thank you, Mr. Chairman.

Mr. ANDERSON. Thank you, Mr. Mineta. We are very pleased to have the Chairman of the Aviation Committee with us today. Mr. Oberstar, do you have any questions?

Mr. OBERSTAR. Thank you very much, Mr. Chairman.

I want to thank you and Mr. Molinari for calling this hearing and for inviting GAO to publicly present the results of this survey which was initiated in the course of one of our I&O subcommittee hearings when I was chairing the subcommittee. And, Mr. Molinari, in the course of the matter raised this issue and asked the GAO to update the survey done in 1985.

I want to compliment GAO and Mr. Mead, you and your staff, for your thorough, objective, dispassionate analysis of the Federal Aviation Air Traffic Control System. Not only the Air Traffic Control System, but in all the other matters in which GAO has inquired into FAA's operations. Most importantly, you have been persistent and effective in focusing on the needs of rebuilding safety and how to do it in a responsible and effective and achievable manner.

The FAA has conducted its own survey which is done on a biennial basis. The so-called job satisfaction survey, as I understand it, was completed last November.

Have you been able to evaluate that survey and to do an assessment of that survey, and more particularly of the questions asked, how they were phrased and whether the questions reflect an adequate gauging of the real concerns and needs of controllers and supervisors and managers.

Mr. MEAD. Just two overall comments. I think this is an important point, and I will ask Tom here to amplify on it. First is the job satisfaction survey that FAA did was designed to do something much different than our survey.

Our survey was not designed to measure whether air traffic controllers liked being air traffic controllers or whether they were satisfied with their job per se. It was a more operational type of questionnaire to find out operational conditions within the air traffic control work force from the controller-manager-supervisor viewpoint.

Second, on those operational questions, like do you handle too much traffic, why do you handle too much traffic, I think it fair to say that the GAO survey went into considerable depth to find out those specific factors, and, Tom, would you amplify on that?

Mr. BARCHI. Perhaps I can best capture the difference between the two surveys, Mr. Oberstar, by a comment that was provided by a controller to FAA's job satisfaction survey, and I quote:

> This survey is inadequate because it fails to differentiate between satisfaction with the job. I like being an air traffic controller and the extensive three-year training program required to become an FPL. I am very dissatisfied with current training and feedback. It is hard to address the differences in satisfaction and dissatisfaction due to the limited nature of the questions. I would hope that would demonstrate that FAA is asking, in essence, how happy are you being an air traffic controller.

We asked what are the components of being an air traffic controller and how do you perceive those components, so our questionnaire was designed to probe much deeper than FAA's.

Mr. OBERSTAR. That is very significant. That is an important point for us to keep in mind when we later hear from FAA. From experience, I find that, and I hope we won't hear that this morning, the assessment of FAA will be that information is out dated, it was done, the survey was completed X months ago and we have more up to date information.

I have heard that so often that I could write the script. I hope we won't hear that today.

Second we might be told, "we have done our own survey, and it is better than GAO's and so you just throw out GAO's survey." I hope we won't hear that today. The distinction between the two surveys is very significant. I think GAO's survey goes much deeper into the components, as you put it very accurately, of the work responsibilities of an air traffic controller and assessing whether those conditions are satisfactory, not whether you are happy with your job.

I like being a Member of Congress; I enjoy it immensely, but there are a lot of things I don't like about it and I would like to change. In the case of my bosses, there aren't very many things people can change. My constituents can't change the things that I am unhappy about, so we just live with them. It goes with the territory. The difference is that in the FAA there is a level of authority that can change those conditions, and what I read in the document or documents that you have submitted is a recurring theme—too much traffic, too long on position, there is a gap between the perceptions on the part of facility managers and those of the work force itself that reflect the comments we heard in 1985–86 in the previous survey and that again reflects the conditions that prevailed prior to August 3, 1981.

So it isn't sufficient to say, "we have got a whole new breed." We heard this in the rebuilding days: "There is a whole new breed of controllers coming on." "The crowd that was in there prior to the strike were a bunch of crybabies, they were complainers, chronic complainers. Controllers are never happy with anything." We heard that many times.

When the survey came out, we heard it less stridently, but we were still told that: "There are some complainers and chronic groaners, but this new breed is going to make a whole new different air traffic control system, so you just watch and wait." Now we have watched and we have waited, and now we find that the new controllers are voicing the same concerns, the same basic concerns that prompted the uprising in 1981. The fix needs to happen.

Now I would like to ask your assessment of a trend that I discerned that while the number of hours of overtime worked at centers seems to be declining, the number of hours of overtime worked at towers has been increasing very considerably. Any reason that you have been able to discern for that?

Mr. BARCHI. We haven't analyzed it to that degree yet, Mr. Oberstar.

Mr. MEAD. What we were most concerned about this time with overtime, Mr. Oberstar, was that so many controllers are saying that not enough overtime is allowed to cover training. In other words, when it is time to go home if there is not another controller to replace the one that is going home, double up—cover the same traffic that was covered by two scopes on one, and that is a concern, particularly because there is not enough controllers who want to do the extra overtime they say is needed to provide the coverage for training.

Mr. OBERSTAR. Well that, I think in itself, is very significant. You anticipated where I was going next. You know my thought process. That is where I was headed. What is now in this environment an acceptable amount of overtime? Are first-line supervisors working too much overtime still? Are they within acceptable levels? Did that vary from facility to facility? What patterns did this survey discern for us in that very important area?

Mr. **Kredatus**. As I flip through my fact sheet on supervisory response, I am looking at page 54, and we see that the responses by the supervisor that characterized how they best described the current situation in regard to overtime at their facilities from their perspective was very much similar to controllers' responses.

So, for example, they are saying too much overtime is assigned so that our personnel are overworked, 12 percent of them felt that way. Too little overtime is allowed so we can't cover training. Leave at other duties was 42 percent. Overtime assignments are appropriate, 36 percent were saying that. When we asked the question not from a how do you view the facility situation, but how do you personally view compensatory time from a supervisor's standpoint as compensatory time, are you generally working more compensatory time than you think you should?

Again, you get a response that is not as dramatic in this case as the controllers. You have 57 percent saying that they are probably not working more compensatory time than they think they should. Thirty percent, however, are saying, yes, I am putting those extra hours, and the remainder were in between the two categories.

Mr. **Oberstar**. Thank you. I think that is a matter that this committee needs to pursue further in another context. Just two observations, Mr. Chairman, I know I have exceeded my allotted time, but morale is, admittedly, an intangible, but it is measurable in a broad sense, and morale within the system is very important. It is vitally important to have a very high degree of willingness to undertake a job in which, from the standpoint of the air traffic controller there is a high degree of responsibility and a very low degree of control.

A controller has a very high degree of responsibility over the traffic that he or she is working and a low degree of authority over his or her own work schedule, time frame, amount of traffic worked.

In that context, morale is crucial. It affects your alertness, it affects your willingness to walk that extra mile, work that extra hour, stay that extra hour at controls. Your assessment of morale within the system as reflected in this survey?

Mr. **Mead**. Unacceptable. Forty-three, 44 percent of the work force overall characterize their morale as low. Again, this is a category most of the managers thought the morale was high. I think morale, while, yes, it is a subjective matter, it is certainly a personal issue.

It is very, very relevant, and it is an indicator of other problems. It can be an indicator at some facilities that the low morale is attributable to much too much air traffic. It can be an indicator at some facilities of poor training, not getting the training that is needed. So I think the indicator of morale is a very good indicator of the health of the system. It is a good barometer.

Forty-three percent is just unacceptable. Moreover, I worry a little bit about that category adequate in our study, and I worry about it not only on the morale but on the safety. In my judgment, we should not have these many controllers saying that the system safety is adequate.

I want them to feel good about saying that system safety is excellent or good. And similarly for the morale.

Mr. **Oberstar**. You would have thought with the HOST Computer System going into place, that with the improvements in other technology that were supposed to relieve work load, and with increasing numbers of controllers that morale would have improved. That was the anticipation a few years ago, and now the survey is showing that, in fact, morale remains at an unacceptable level.

What we heard three and four years ago was controllers saying, "I put a great deal of energy into keeping this system afloat during the tough times, and I anticipated that there would be a time coming when I could anticipate more vacation time, more leave time, less time at controls, and it isn't happening, and I am being stretched too thin." Now that is happening at certain selected centers, not in all centers, not all TRACONs, not all towers, but it is happening enough so that there is a continuing problem.

That coupled with your observation that some 29 percent of first-line supervisors are eligible for retirement may signal that we may have another problem on the horizon for us.

Mr. **Mead**. Yes, sir.

Mr. **Oberstar**. I want to thank you for a very, very valuable contribution to maintaining system safety but share your concern on that of the Flight Safety Foundation that the margin of safety, while improved, is less than desirable, and the controller work force is one component of an assessment of the factors that make up system safety, but I think it is the heart of the system.

Thank you, Mr. Chairman.

Mr. **Anderson**. Thank you, Mr. Oberstar.

Mr. Hastert.

Mr. **Hastert**. Thank you, Mr. Chairman. I just have a couple questions just to get a handle on what really we look at morale and what it is and what it isn't. I have a fairly good sized center in my district, and what—do you have any percentages, can you relate or contrast any percentages of morale of employees that were there prior to '81, because we have some, as opposed to those that were there post '81. Where is the dissatisfaction, I am asking?

Mr. **Mead**. Flight Safety Foundation might be able to address that. GAO didn't enter into the business of surveying the controller work force until 1985.

Mr. **Hastert**. So you don't really have any comparisons there?

Mr. **Mead**. No.

Mr. **Hastert**. That is not quite my question. The people who are employed now, we have some people who have been there, who have been in employment since prior to '81, who are still working. Between those two different work forces—I mean, where do those numbers come from? Are the old employees disgruntled, are the new employees disgruntled? Where is the most dissatisfaction?

Mr. **Kredatus**. It is possible to do the very analysis that you are talking about, to break down exactly, for example, how many years experience you had with FAA or years controlling traffic with FAA and morale. We have not done that at this point.

Mr. **Hastert**. I would like to see that if you have the ability to do that and can run it through a computer. Is it the old timers that are disgruntled or is it the new employees that are disgruntled?

Mr. **Barchi**. It is a good question, and you are getting at an important issue. I don't know if our questionnaire breaks it out in such a way, though, that we can identify whether the particular respondent was at that particular facility prior to 1981.

Mr. **Hastert**. Well, if you could just tell me if they have been in the system prior.

Mr. **Barchi**. We could do that.

Mr. **Hastert**. I would appreciate that. Also you did mention between centers. How about between centers of like magnitude, did you find great differences in morale there, say between Chicago and LA or New York?

Mr. **Mead**. When we do the individual facility results, which we haven't completed yet, but our preliminary indications are that there are very substantial swings in morale within both centers and terminals.

Mr. **Hastert**. Is it in correlation with the amount of activity in those centers?

Mr. **Mead**. Well, we will have to do that analysis for a particular facility.

Mr. **Hastert**. So you can't say those centers that were the most active, I mean that had the heaviest traffic had the lowest morale?

Mr. **Mead**. No. But we will be able to draw correlations between the percentages of controllers at a facility who felt they were handling too much traffic versus their morale, and we will be able to bump up against that, you know, flight operations at that particular facility over a period of time.

Mr. **Hastert**. The real focus of my question is, do people in Chicago have poor morale because they have too much to do, they are too busy, there's too much traffic, as opposed to somebody who is sitting in Tuscaloosa, Alabama? Is the morale factor about the same level in other heavy traffic areas? I think that is a simple question.

Mr. **Mead**. We are doing the cut for Chicago over the next two or three weeks on what the figures specifically for Chicago show. I might add, as Tom reminds me, we gave a pledge of confidentiality to all the respondents to this questionnaire. I am not so concerned about the controllers at Chicago because their responses would be arrogated, as would the supervisors, but the facility manager issue is a somewhat different one, although one could argue that, well, what did it matter so that all the facility managers disagree?

Mr. **Hastert**. I think I am asking something fairly generic. I am saying is the level of unhappiness, make this a generic term, the same in Chicago and Los Angeles and New York where you have heavy traffic and Atlanta, or is one of those areas unique having more or less?

Mr. **Mead**. We'll find out for you.

Mr. **Kredatus**. I would like to add on this very point, just to give you one general observation of we, for example, contrasted the morale of developmental controllers versus full performance level controllers, and there were 30 percent of the developmentals who said their morale was low or very low compared to 44.7 percent, 45 percent of FPLs who said their morale was low or very low.

What you saw here today was, of course, the composite controllers which consisted of FPLs and developmentals, so the very type of thing you are talking about can be done. I did want to add the other point that what Mr. Mead was referring to in confidentiality, when you start talking about, for example, the years experience that you have with the system, for example, one to three years, four to six years or whatever, what we are concerned about is that we don't want to, by disclosing those individual cells reveal a narrowing down of who these individuals might be who responded to our survey results, so—we will always combine them in such a way so that the results will remain confidential.

If that means, for example, building a larger group of people so that we can, in fact, report the results that would be along the lines of what you are talking about.

Mr. **Hastert**. Well, in the case of Chicago Center where you have hundreds and hundreds of employees, I would like to know if the people—when you start to lay these things out, who are the people that are unhappy?

One final question to make this whole thing relevant to everything. How about the performance or the statistics of disgruntlement among employees as compared to other government agencies, say forest rangers, for instance?

When you get to be 48 years old and you are still a forest ranger, are 43 percent of those people unhappy with their profession? Do you have any comparisons that you can make here?

Mr. **Mead**. We have done surveys in GAO for other places, and there is no common denominator of complainers. It varies all over the map. We have done surveys of one agency where the morale was a negative or disgruntlement factor was 10 percent.

More fundamentally, right within this questionnaire, right within this work force there is no indication that there is a common denominator disgruntlement level.

It is not correct to say that controllers are simply a complaining lot because I can point to facilities where the statistics——

Mr. **Hastert**. I don't think that was the intent of my question, sir. I think what I am trying to say is if you surveyed the U.S. Congress, 435 people, some would be more happy with their lot in life than others. It may be the inverse in Congress because the longer you are here, the more power you have and all those kinds of things or at least perceived to have and maybe you are happier. I don't know.

At least I am trying to say if 32 percent—we will pull a number out of the air—are unhappy with their job, is that relevant to other satisfaction, job satisfaction?

The unique aspect of this thing I think you can look at is there are people's lives on the line with the performance of these people, and it is a very important aspect. But there are other government services where there are lives on the line.

Are we comparing apples to oranges, or is there something here that this is human nature?

Mr. **Barchi**. We have researched that question anticipating that the number, if you will, 43 percent, is that an acceptable level of morale? Quite frankly, it is very difficult to come up with a similar work force, although you are suggesting, and accurately so, there are other work forces that do deal with human life.

Nonetheless, it is very difficult to paint a picture that is similar enough to where I think you can draw a reasonable parallel between that particular work force and air traffic controllers.

We have, for instance, looked at an EPA program, Superfund. We looked at the morale level for those folks in a very difficult area, very frustrating area, an area that received a lot of attention over the years.

We found the morale factor I think somewhere in the neighborhood of 20 to 22 percent expressed a low morale. I don't know if you can compare the two, though. I think you are absolutely correct, that we don't want to compare apples and oranges.

But it would be our position if 43 percent of our work force continuously expresses a low morale, my professional opinion would be as a manager I would be concerned about that. It seems like an awfully high number.

Mr. **Hastert**. Something tough to turn around. I have a practical interest in this, too. Most of the people who live in Chicago Center are my constituents. I want to make sure they are happy and doing a good job and well serving all those people who are also my constituents that fly in and out of O'Hare.

Mr. **Barchi**. Including yourself.

Mr. **Hastert**. Including myself a couple times a week.

I think you can see my point. If you can shed some light on that, especially with the view I will probably walk into the Chicago Center some time in the next month or so and talk to some people, I would like to know what we are talking about here.

Thank you very much.

Mr. **Anderson**. Mr. Browder.

Mr. **Browder**. Thank you, Mr. Chairman. I hate to keep you folks here longer, but I have a few questions.

You documented a gap in 1985 and 1988 that is unacceptable. I would like to pursue the question that was just asked. You haven't done any studies prior to 1985. I would like to ask anybody on the panel, are you aware of surveys or studies that might have been done by some other agency or somebody else that would give us some kind of handle on whether this is a contemporary problem or whether this kind of gap for these people—I am not trying to suggest this—is that just normal? Does anybody know of any other state that someone else did—study that someone else did?

Mr. **Wood**. There was our questions done in 1981. In our personal interviews, the gaps showed up. NTSB has looked at the situation post strike. There was the Jones Report, and there were probably others that don't come to mind right off.

But I think the thread through all those is the communication gap. This isn't anything new. It is continuous.

Mr. **Browder**. So from the evidence that you have seen it has been pretty consistent.

Mr. **Wood**. Yes.

Mr. **Browder**. Okay.

A second question, on chart 12, you have listed the data on factors that hinder system safety. But in addition to that question, you asked another question asking these people to identify the most serious problems facing the air traffic system.

Can you share those results with us?

Mr. **Mead**. Yes, we can. We anticipated your question.

Mr. **Kredatus**. That is one of the charts.

Mr. **Mead**. You see there is a lot of comparability between the factors on the hinder safety list and the views of the most serious problems facing the air traffic control force. What this chart does is ranks the top five as ranked by controller, supervisors and managers. It is a combination of an overall view of the system, you might say.

Out-of-date hardware was number one by the controllers with serious problems. Forty-six percent of them said that. Morale was the number two problem, close second, 44 percent.

Shortage of FPLs, third at 44 percent. Airline scheduling practices fourth at 40 percent, and too much air traffic, fifth at 27 percent.

Managers, of course, as you can see, ranked them quite a bit differently.

Mr. **Browder**. I don't know whether you commented on this, but was there pretty much uniformity within each group, or was there great diversity, for example, among controllers? Was it pretty much agreement on those out-of-date hardware equipment, number one?

Mr. **Mead**. Forty-six percent of the controllers said out-of-date hardware was the key issue.

Mr. **Browder**. We still see the gap here.

Mr. **Kredatus**. Actually, the supervisors, to give you a contrast to that out-of-date hardware equipment, 38 percent of the supervisors said it was a most serious problem even though it was ranked number three.

It still came in at 38 percent of the supervisors saying that. Forty-four percent of the managers had it ranked as one of the serious problems in its ranking as shown on the chart and ranked it number two.

There is an interesting thing that can be said about all five problems and that is, basically, the controllers and supervisors agree on the five most serious problems, but they have them in different order.

Mr. **Mead**. I think FAA might want to address this this afternoon, but the managers ranked a factor that the controllers really didn't weigh in on which is the budget and resources. That might be something that you wouldn't perhaps expect a controller to point to first of all, but it is something that facility managers have high on their list.

Mr. **Kredatus**. The managers, it was a write-in candidate on their part to express their point of view.

Mr. **Browder**. Thank you.

Thank you, Mr. Chairman.

Mr. **Anderson**. Mr. Duncan.

Mr. **Duncan**. Thank you, Mr. Chairman.

A few minutes ago when you first called on me, I had just gotten here, and I hadn't had a chance to review this survey. Just to speed things up, I will just make a couple of comments.

Congressman Hastert apparently had some of these same thoughts, as I have had. In this survey, it says that only 12 percent of the air traffic controllers think they are handling much more traffic than they should be handling.

It would be my observation if you surveyed almost any group that they would say they were overworked, whether it be teachers or bank tellers. I remember I met a few months ago with a group of dairy farmers, and they told me about—they said they wished the federal government would take over the dairy business so that they could then work a 40-hour week and have several weeks of vacation and a good pension plan and all of that.

I think this is an extremely low figure for only 12 percent to say they are handling less traffic or handling much more than they should be handling. That is a decrease from 15 percent in 1985.

Also, 53 percent say somewhat more than I should be handling. I think once again, if you surveyed the Members of Congress, for instance, almost all of them would say—any group you survey is going to say they are doing somewhat more work than they should be doing.

Then I know that the percentage that says they are handling an appropriate level of traffic has gone up from 28 percent to 33 percent. Then also I noticed in Mr. Whittington's testimony he will be giving this afternoon that the controller work force has gone up to 16,464 and that an additional 695 positions are being added or have been requested for fiscal year 1990.

It seems that great progress is being made in this area and that really, you know, we can scare the public here and say that there is a great safety factor and these controllers are overworked and underpaid and that there morale is low.

As Congressman Hastert said, I think almost any group, especially if you went outside the federal government, would say there morale, more than 47 percent would say their morale is low.

Since I came to Congress six-and-a-half months ago, I have had, I would say, several thousand people have written me and called me wanting jobs with the federal government.

The federal government has become the employer of first choice for about 99 percent of the American people now. Those of us—the federal government needs good employees, but those of us who work for the federal government need to realize that we are fortunate to have these jobs, whether we are members of Congress, whether we are air traffic controllers, whether we are with the General Accounting Office. We are fortunate to work for the federal government.

I think when you consider the pay and the pension and the hours and the benefits the air traffic controllers are adequately compensated, and you are making improvements here.

It looks to me like we are making a real mountain out of a molehill in this entire situation here today.

Thank you, Mr. Chairman.

Mr. Wojcik. May I make a comment in regard to that remark?

Mr. Anderson. Yes. Go ahead.

Mr. Wojcik. I think in the case of the air traffic controllers, we are dealing with a very special case, because the demand for an extremely high level of safety is extraordinary. That is to say even one accident is unacceptable.

So, I think even though we cannot prove that the relatively low levels of strong dissatisfaction necessarily indicate that there is a safety problem, these areas ought to be at least looked into to really make a determination simply because the standards are so high.

Mr. ANDERSON. Mr. Molinari, do you have another question?

Mr. MOLINARI. A couple of questions.

First of all, Mr. Duncan, I don't know if you were here earlier when I pointed out that from September 30, 1988, to April 30, 1989, a seven-month period, our full performance level controller staffing went from 9,858 down to 9,689. That means we lost, not gained, we lost 169 experienced journeymen controllers, so that the burden that rests on those that are in the force becomes that much greater.

I think that what we are hearing here today and what we are going to hear is the survey by FAA says that 90 percent of FAA employees like the work they do. There is no question about that. They like it. They are good at it.

We are fortunate to have the men and women in that work force. But what they are saying is in some areas that the working problems, the working environment is not good.

Now, a very important line of questioning took place before by Mr. Mineta and accompanied by Mr. Oberstar. They talked about Minneapolis. In Minneapolis, they pointed out 19 percent, only 19 percent of the controller work force there said they had morale problems. That means—and why? They pointed out that almost a hundred percent of the center walked out.

Let us take a look at Washington Center. If I am not mistaken, I think Washington Center had the highest percentage of any of the centers that remained on the job and didn't strike and weren't fired.

What figures do you have of Washington Center? You alluded to them in your statement. What do they say about morale?

Mr. MEAD. To contrast them with Minneapolis, Washington was about 68 percent of the controllers said there morale was low compared to the 19 percent in Minneapolis.

Mr. MOLINARI. Now, that is an important point. Sixty-eight percent, it is astounding. Sixty-eight percent of the facility where the people stood by their jobs and said we are not going to strike and they are the very people today that are telling us that they are working under bad morale problems.

Doesn't surprise me at all, because I have been there. I heard it. And Mr. Del Balzo was there, and after two-and-a-half hours of listening to them, his comment was not one single complimentary remark was passed by the workers, and there were hundreds there that day.

So, that is a very critical, critical problem. I would just ask one question on that score and move to one other, and we will finish with this panel.

You have thousands of remarks that were added to the survey. What we are hearing is a great divergence of opinion between management in FAA and the controller work force. Based on what you have, based on the people you have talked to, based upon those 2,000 or 2,100 volunteer responses, who is right and who is wrong?

Mr. **Mead**. That is a tough one. I look at this and maybe this is a fairly pedestrian way to look at it, but the air traffic controllers are the ones that guide the planes in the sky. Just as when I have a problem with my car, I am no mechanic, and the man at the garage tells me the front end needs some alignment, I have a lot of faith in that judgment.

When the air traffic controllers tell me they are handling more traffic than they can appropriately handle and they make comments that are overwhelmingly negative, I have to give some credence to what they are saying.

Mr. **Molinari**. If you go to a center—and I think that is the problem. I have been to Boston Center, saw some wonderful people there with their heads hanging very low, demanding and crying out for relief. I can't understand why it is that we cannot respond to the cries of anguish from people like that who say hey, come on, we are hurting. We need help. We want to do the job, and we will work extraordinary hours, but give us some help.

I am running out of time. I just want to turn to one other thing, if I could. That is the expected retirements which is a very serious problem. If you will, on Page 36 of the Aviation Safety Conditions, the fact sheet, when you asked the question about do you plan to retire in the next two years, look at the controller work force. We have 39 percent that say definitely they are going to retire.

Now, my mathematics suggest 39 percent of the current work force, using the last figures in your charts, would add up to 563 controllers saying they will definitely retire within the next two years. Would that figure sound correct to you?

Mr. **Mead**. It sounds about right.

Mr. **Molinari**. You have 10 percent of the work force saying——

Mr. **Kredatus**. Don't forget, these are part of the 84 facilities we covered, not necessarily of the entire——

Mr. **Molinari**. That is a good point, so it is liable to be higher. Taking a conservative estimate, we have 563 that definitely say they will retire as controllers and those that say probably, that is 37 percent, I come up with 534.

So of the 84 facilities—a good point you mentioned—the number that I come up with is 1,097 controllers who say they are definitely going to retire or probably retire within the next two years.

Then quickly turning to the supervisors, a very, very important work force, 2,000, of the 2,000 we have 32 percent of the supervisors say they are definitely going to retire. That is a pretty easy figure, even with my mathematics; comes to 640, and 42 percent say they are probably going to retire. I think that comes to 840.

So we are talking about 444, 192 definitely retire and 252 probably retire. I come up with a figure again of the facilities we are talking about, 444. I think FAA's figure is slightly different in terms of overall expectations.

But I would like you, if you could, quantify those figures. That is a very important figure for our subcommittee. It is very important to FAA and very important to the system because that is the nuts and bolts of our system.

I would just like a response on that and then I am finished.

Mr. **Kredatus**. The math that you have just undergone, I am not as sure of those figures as you are. If you will look, for example, at question number 39, you will see that the estimated number of respondents overall was 529, so the definitely "yesses" and probably yesses are percentages of the estimated respondents that said that.

Now, if you want to apply those figures to everybody because there is a sampling, for example, at centers, the number—I am not exactly sure what they would show, but I guess I am just trying to caution you that the responses are of the number of estimated respondents.

Mr. **Molinari**. I understand. What I did was take those percentages and took them as a representative sampling. They may be off because I suspect that we are dealing with the 84 busiest ones, and those that are not as busy, there is probably a greater desire to stay on because they don't have the same kind of problems.

Maybe my figures that I projected are a little on the high side.

Mr. **Mead**. Regardless of what your math is, I think the underlying point is the information is useful to FAA as a precursor of problems possibly of the specific facilities and the data runs you are speaking of certainly can be made.

Mr. **Molinari**. Yes, and I suspect that is probably the answer to why we have lost 168 controllers, FPLs in the last seven months.

Mr. **Kredatus**. FAA does have the figures, Mr. Molinari. I have seen them. Unfortunately, my memory, with all the figures I am already holding in my head, I don't remember those particular ones.

But I know they do have those figures, and that is the other reason I am somewhat uncertain, because I know that I have seen them. I am just not sure that I can remember what they were.

Mr. **Molinari**. I appreciate that. Let me just close by saying this. The reason why I raise this question is—about the projected retirements based on surveys is because we have looked at figures like this in the past, and my experience is that FAA has continuously underestimated the number of retirements that they project.

Invariably what happens is a lot more retire than they are predicting will retire and then, of course, if you are not preparing for it, you have got a serious problem on your hands.

Mr. Chairman, thank you for your indulgence. I have no further questions.

Mr. **Anderson**. I, too, have about a half a dozen questions here that I would ask, but because of the time, I am going to submit them to you in writing, and your answers will be made part of the record.

[Mr. Mead's prepared statement follows:]

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Testimony

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Serious Problems Continue to Trouble the Air Traffic Control Work Force

Statement of
Kenneth M. Mead
Director, Transportation Issues
Resources, Community, and Economic
Development Division

Before the
Subcommittee on Investigations
and Oversight
Committee on Public Works
and Transportation
House of Representatives

GAO Form 160 (12/87)

Mr. Chairman and Members of the Subcommittee:

We appreciate the opportunity to testify on the results of our survey of the air traffic control work force, which we conducted at your request. The purpose of the survey was to determine how the work force perceives working conditions and other aspects of the air traffic control system. This survey updates our 1985 survey and represents the views of controllers, supervisors, and facility managers at the Federal Aviation Administration's (FAA) 84 largest facilities. Overall, 5,098 of 6,469 questionnaires were returned. The rate of response--nearly 80 percent--was exceptional.

The survey results,[1] being released today by the Subcommittee, show that controllers and, to a lesser extent, supervisors are troubled by a wide range of working conditions, such as handling too much traffic and working too long on position, and other aspects of air traffic control that affect system safety and operating efficiency. In contrast, facility managers viewed conditions more favorably. On the whole, controller, supervisor, and manager views did not differ substantially from our 1985 survey results. It should also be noted that the results of both our 1985 and 1988 surveys varied among individual facilities.

We asked the Flight Safety Foundation, our consultant, to review the survey results. Overall, it sees little improvement in the air traffic system since 1985.[2] The Foundation concluded that the system is not unsafe but that the margin of safety--that undefined limit beyond which the system would no longer be safe--remains less than desirable.

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[1] Aviation Safety: Serious Problems Continue to Trouble the Air Traffic Control Work Force (GAO/RCED-89-112, Apr. 21, 1989) and Aviation Safety: Conditions Within the Air Traffic Control Work Force (GAO/RCED-89-113FS, Apr. 24, 1989).

[2] The Flight Safety Foundation is an international, nonprofit membership organization dedicated solely to the improvement of flight safety.

Finally, we believe the responses to the survey represent a significant statement on the part of controllers regarding the need for effective human resource management and modernization. FAA has recently undertaken or planned initiatives that, if sustained, have the potential for addressing in the long term some of the air traffic work conditions of concern to the controllers. However, human resource initiatives undertaken to date clearly have not had a discernable impact on narrowing the gap that exists between facility managers' perceptions and those of the rest of the work force.

BACKGROUND ON WORK FORCE AND AIR TRAFFIC GROWTH

Before discussing our survey results, I want to provide a perspective on FAA's rebuilding of the air traffic control work force and the tremendous growth in air traffic since our 1985 survey. This perspective is important to fully understand the work force's responses.

FAA has been able to increase the numbers of controllers since 1985. However, controllers still number about 1,800 fewer than before the strike: 14,437 as of September 1988 compared with 16,244 prior to the strike. Also, the number of FPLs[3]--the core of experienced controllers--in fiscal year 1988 was about 3,300 short of the prestrike FPL number, 13,205. (Chart 1.) In 1981, 81 percent of controllers were FPLs in contrast to 68 percent today.

As you know, FAA has sought waivers from meeting congressionally mandated goals for FPLs during the last 2 years, and it is unlikely that current year goals will be met. Furthermore, to reach its budgeted FPL number of 12,725 by the end of fiscal year 1990, FAA will have to add about 3,100 FPLs. Even then, FAA will not have reached the prestrike number of 13,205 FPLs.

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[3] FPLs are full performance level controllers who are fully certified to operate all positions in a defined area.

Several factors have affected FAA's progress in adding new controllers. This can be illustrated by the fact that FAA needs 100 applicants to eventually produce one FPL. Loss of high-potential candidates to other offers because of the 12-18 months to hire and a 40-percent attrition rate at the FAA academy have made it difficult for FAA to replace the over 11,000 controllers it lost in 1981. Another factor that can potentially affect this progress is retirements, particularly at the supervisor level. Data show that about 29 percent of the first-line supervisors are now eligible to retire.

While FAA has been trying to improve its staffing level, the volume of air traffic has increased every year since the strike. Since fiscal year 1982, the volume of traffic at terminals and centers[4] has grown by about 40 percent and 30 percent, respectively. Together, flight operations in fiscal year 1988 exceeded 80 million, compared with 60 million in fiscal year 1982. Further, FAA expects air traffic to continue to grow--reaching about 100 million operations by fiscal year 1995. (Chart 2.)

PROBLEMS TROUBLING THE AIR TRAFFIC CONTROL WORK FORCE

Controllers expressed specific concerns about various working conditions, including too few controllers, handling too many aircraft, overtime, quality of developmental[5] training, and morale. Additionally, they viewed airline scheduling practices and out-of-date equipment as contributing significantly to controller difficulty. Supervisors shared many of these concerns.

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[4] A network of 20 centers in the contiguous United States provides for control and separation of aircraft between destinations and over oceanic routes. Terminal facilities control aircraft within the area of one or more airports.

Although facility managers agreed with controllers that FPL staffing is too low, airline scheduling and hubbing practices hinder traffic flow, and out-of-date equipment is a serious problem, they generally disagreed with controllers on other critical issues. For example, facility managers generally did not believe that controllers handle too much traffic, and most viewed the amount of facility overtime as appropriate. Managers also viewed the quality of most aspects of training that developmentals receive at their facilities as predominantly good or excellent and viewed the morale of controllers and supervisors as high.

A number of controllers and supervisors offered specific comments at the end of our questionnaire on the working conditions at their facilities. Collectively, they made almost 2,100 comments, which represented about 45 percent and 49 percent, respectively, of the surveyed controllers and supervisors. Because these comments help to explain the statistics from our questionnaires, I am including examples in our testimony.

Work Force Agrees Shortage of Controllers Exists

The work force still sees a shortage of FPL and developmental controllers. Despite a net increase of about 1,500 FPLs and 400 developmentals in the 3 years between our surveys, 85 percent of controllers in 1988 perceived a shortage of FPLs and 67 percent perceived a shortage of developmental controllers. Similarly, 77 percent and 71 percent of supervisors and managers, respectively, said that the number of FPLs was too low; 63 percent and 50 percent of supervisors and managers, respectively, saw the current number of developmentals as too few to meet future controller needs. (Chart 3.)

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[5] A developmental controller is one who is undergoing training. Developmentals control traffic as they become proficient in a defined area.

As a result of the shortage, controllers said they were personally limited in such areas as taking annual or sick leave or obtaining required training. For example, 80 percent of controllers viewed their ability to take annual leave on short notice (2 weeks or less) as "moderately" to "very greatly" limited. Supervisors also were personally limited in these same areas because of shortages of controllers or first-line supervisors.

One controller described the implications of this problem in this way:

> "Our staffing level today is 6 FPLs, 10 developmentals, 1 first-line supervisor. I hope no one calls in sick. Of the six FPLs, two of them are on mandatory overtime. The weather is forecasting thunderstorms and rain. Tensions will be high by both controllers and pilots. I know someone will call in sick."

A supervisor said:

> "We continue to staff at a bare minimum. My greatest fear is that during a very busy period, one of my controllers will ask for help ... and I won't have anyone available to help him or her."

Handling Too Much Traffic

Controllers say they are handling too many airplanes, but managers disagree. In 1988, 65 percent of controllers believed they typically handled more traffic than they should during peak periods. However, managers believed only 5 percent of controllers handled too much traffic. A similar disparity was evident in 1985. (Chart 4.)

A majority of FPLs also believe they are working too long without a break, but managers disagree. Fifty-nine percent of FPLs in 1988 viewed the typical time spent working an air traffic control position without a break during peak periods as being too long. In contrast, 7 percent of managers said the amount of time FPLs continuously work was somewhat too long. A similar disparity was evident in 1985.

FAA believes it is desirable to have some relief periods away from operational positions during the course of a workday. In recognition of this, FAA tries to provide controllers a break after spending up to 2 hours on the same air traffic control position. However, on the basis of the responses controllers provided, 32 percent of controllers are typically controlling traffic in excess of 2 hours during peak traffic periods. Further, 87 percent of controllers worked in excess of 2 hours without a break at least once in the last month. (Chart 5.) A controller said:

> "Some supervisors feel that working 2 hours on a position, then moving to another position for 1-2 hours is a break. ... On one shift ... the first break by anyone (including physiological breaks) was 4 hours into the shift."

Recently, FAA reached agreement with the controllers' union, specifying that, if operational requirements permit, controllers will receive a break after 2 hours during which no other duties may be assigned.

Although Improved, Overtime Remains a Concern

Controllers' views of overtime provide two distinct perspectives: (1) a description of the actual situation at their facilities and (2) a personal perspective of the amount of overtime they wanted to work. First, the amount of overtime has decreased since 1985. Further, according to controllers, overtime at facilities seems to be less than needed to provide sufficient coverage at some facilities to train and do other duties. In describing the actual overtime situation at their facilities, 49 percent of controllers said too little overtime is allowed to provide sufficient coverage for controllers to train, take leave, and do other duties; but only 12 percent of managers shared this view. Another 24 percent of controllers said overtime assignments were appropriate; in contrast, 70 percent of managers shared this view. (Chart 6.)

One supervisor described the actual facility overtime situation:

> "... [A]lthough overtime is really needed especially during summer vacation time, we do not use it. We make do by working one or two FPLs short, by using supervisors, and by using developmentals [not yet radar qualified]. ..."

Second, from their personal perspective, 38 percent of controllers who worked overtime in the last year said they had worked more overtime than they wanted. This is, however, an improvement from the 46 percent of controllers who shared that view in 1985.

Inadequate Quality of Training

Training is critical to an individual's successful performance as an air traffic controller and to the safety of the nation's air traffic system. Controllers had strong concerns about the quality of certain aspects of developmentals' training. Many supervisors and developmentals shared these concerns. However, facility managers do not share these perceptions.

A majority of FPL controllers and many supervisors rated the quality of developmentals' training as "less than adequate" or "poor" in such training aspects as using backup systems, controlling traffic in bad weather, emergency procedures, and holding patterns. In contrast, most facility managers rated the same training as predominantly "adequate" to "excellent." A similar disparity with the views of controllers and supervisors was evident in 1985. (Chart 7.)

One supervisor said:

> "We have OJT [on-the-job] instructors providing OJT when they barely handle the job themselves."

Another supervisor said:

> "... Most older journeyman controllers are burned out on OJT and the best candidates (with moderate or greater experience) are in staff positions. This leaves us ... with lower experienced controllers ... training developmentals."

In our view, two other points related to developmental training are also worth noting. First, 31 percent of the surveyed controllers said that training involving live traffic before certification on an air traffic position was insufficient. One controller described this situation:

> "Due to pressure, ... trainees are being checked out too soon, then the supervisors put one of the experienced controllers in to work the handoff position for this not-yet truly qualified controller and tell us to keep an eye on him/her."

Second, many FPL controllers expressed concerns about developmental talents, stating that the developmentals' work attitude (45 percent), overall skill level (40 percent), and ability to learn (31 percent) were worse at the time of the 1988 survey than 3 years previously.

Low Morale

Forty-three percent of controllers characterized their morale as low. Only 4 percent of facility managers recognized controller morale as being low. (Chart 8.) In contrast, 29 percent of controllers said their morale was high compared with 56 percent of managers who said controller morale was high.

A controller said:

> "Morale is horrible, traffic intolerable, management insensitive, we're overworked, understaffed, and abused. We even have [a supervisor] who says you can't stand up to relieve the tension and ache after spending 2-1/2+ hours at a sector by yourself [without] any help. We've been told to reduce [overtime]. ... Equipment is horrible. Worst of all - nothing will change after this survey - too bad."

Facility managers also did not accurately gauge supervisor morale. (Chart 9.) While 36 percent of first-line supervisors said their morale was low, only 3 percent of managers saw it as low. In contrast, 65 percent of managers said supervisor morale was high contrasted with 38 percent of the supervisors.

One supervisor explained:

> "... 1) staffing is improving too slowly (in the past 6 months, my area has actually regressed due to retirements and promotions); 2) employee input is not really being sought out; 3) budget constraints make PCS [permanent-change-of-station] moves practically impossible (a major morale buster for several controllers in my area); 4) drug testing is being performed on a work force with no history of drug-related errors/accidents - (very insulting professionally); and other reasons."

Another supervisor said:

> "The FAA is back to where it was in 1981. Human relations is a 'joke.' Upper management never bought the

> [illegible] their lack of the humanistic approach being a major factor in the '81 strike. Morale is at an all time low and once the Union gets on its feet, I can see the same 'confrontations' taking place as we had with PATCO."

Airline Scheduling Practices and General Aviation Viewed as Contributing to Controller Difficulty

The difficulty of a controller's job can be increased by the number of aircraft to be handled simultaneously, as when airlines schedule several aircraft to depart or arrive at the same time. One supervisor said:

> "The major problems facing the air traffic control system are airline schedules, the hub system, and our inability to effectively regulate this traffic. We realize that the airlines are in business to make a profit and that this is the most effective way to do so, but there are times during 'pushes' at the hubs when the system teeters on the brink of being unsafe."

Controllers and supervisors voiced equally strong (93 percent) concerns that airlines' scheduling practices hinder traffic flow. Managers (95 percent) agreed. (Chart 10.) Controllers (76 percent) and supervisors (80 percent) also believed that airlines' use of hubs hinders traffic flow. Managers (89 percent) agreed. (Chart 10.) In addition, controllers (46 percent) and supervisors (41 percent) rated general aviation pilots "less than adequate" in their communication performance, i.e., their ability to follow air traffic control instructions, use correct phraseology, and keep unnecessary communication to a minimum. In contrast, a substantial majority (90 percent) of controllers and supervisors rated major airline carrier pilots as "adequate" to "excellent" in their communication performance.

Out-of-date Equipment Is a Concern

Controllers, supervisors, and managers agreed that out-of-date hardware/equipment was a serious problem facing today's air traffic control system. In this respect, however, about two of every three controllers at centers saw the introduction of FAA's new Host computer as a positive factor in helping them do their job.

A controller said this about the most serious problem, equipment.

> "Our equipment level is, in a word, prehistoric. We write our weather down on a piece of paper, and place it on our scopes. ... It is inconceivable to me that [one of the] busiest airports in the world ... can't get the state-of-the-art equipment it so desperately needs."

Similarly, a supervisor said:

> "One of our biggest problems is radio equipment and coverage--they're old and fail way too often and the back-up systems that we're forced to use give poor coverage--totally unacceptable. ..."

CONTROLLERS AND FLIGHT SAFETY FOUNDATION SEE LITTLE IMPROVEMENT IN SYSTEM SAFETY

Controllers' overall view of safety remains basically the same as in 1985. Most controllers and supervisors and all managers rated the overall safety of the air traffic control system as "adequate," "good," or "excellent"; however, some controllers (16 percent) and supervisors (8 percent) rated the system as "poor" or "very poor." (Chart 11.)

On the basis of their observations and experiences, a majority of controllers cited several factors as hindering FAA's ability to maintain system safety: the amount of traffic work load, controller morale, the number of FPLs available, hardware reliability, and software reliability. (Chart 12.)

Controllers had these comments related to safety:

> "I have worked airplanes that I only had an idea of within 10 miles of the actual locations of the planes due to target jumps and radar splits."

- - -

> "... During thunderstorms I have seen sectors completely out of control. Too many aircraft! We have big sectors (area wise) in this facility, but there have been sectors with 50-60 aircraft in them at one time, all deviating. Safe? No way. ..."

A supervisor said:

> "Another area that needs attention is the equipment we are using, especially the radios. ... [T]he very heart of our business--communications--is accomplished using 1950s radios. Tube type! ... It's just a matter of time before we have a serious problem because of the radios. ...
>
> "Another area that needs attention is stuck mikes [microphones on aircraft]! In the past three months we have experienced several by [aircraft] and two of them it was nothing but luck, pure luck, that kept aircraft from hitting! ... The stress on the sector controller is unmeasurable when a stuck mike happens. ..."

Views of Flight Safety Foundation

We asked the Flight Safety Foundation to evaluate our 1988 questionnaire results and provide its views on the safety of the air traffic control system, relative to its 1985 views. According to the Foundation, the most striking result of its comparison of the 1985 and 1988 GAO reviews was the similarity of the responses.

Although some shifting of emphasis and areas of concern occurred, conditions within the air traffic control work force appeared to have changed little, and the 1988 responses offered no basis for altering its 1985 assessment of the system's safety. The Foundation concluded, as it did in 1985, that the system is not unsafe but that the margin of safety remains less than desirable.

The Foundation also pointed out that a substantial difference exists between controllers' views of their morale and facility managers' views of work force morale. The Foundation views this as evidence of a continuing communications gap between FAA facility management and the controllers--and, to a certain extent, the supervisors. Further, since the 1981 controllers' strike, a vast difference has existed between the perceptions of managers and those of controllers regarding work force morale and working conditions. This, in the view of the Foundation, is a significant contributor to a less than desirable margin of safety.

CONTROLLERS' VIEWS VARY BETWEEN FACILITIES

Our survey results of the various problems facing the air traffic control system represent the composite views of the work force at FAA's 64 largest terminal facilities and 20 centers in the contiguous United States. Results, however, can and do vary between centers and terminals. They also vary between individual centers and between individual terminals. For example, differences exist in controllers' views between centers and terminals.

-- Thirty-seven percent of center controllers, compared with 21 percent of terminal controllers, responded that they were typically required to continuously work a control position longer than 2 hours.

-- Center controllers rated developmental controller training as less adequate than did terminal controllers.

-- Terminal controllers rated, to a greater degree than did center controllers, six of eight factors that can hinder FAA's ability to maintain system safety. For example, terminal controllers said that hardware (69 percent) and software (71 percent) reliability hindered system safety compared with 58 percent and 46 percent, respectively, of center controllers.

The Flight Safety Foundation, from its review of the questionnaire results, concluded that conditions overall at terminals appear to have worsened more than at centers in such areas as high traffic levels/work load, personnel shortages, and software. In the view of the Foundation, terminals merit FAA's special attention to ensure that their performance and safety are not degraded as traffic levels increase.

Further, controllers' views on our questionnaires vary between individual centers and between individual terminals. For example, Washington and Boston center controllers expressed more concern about their working conditions than did Minneapolis and Albuquerque center controllers in such areas as air traffic handled, time continuously worked on position, controller staffing, safety, and morale. Similarly for these same areas, the Phoenix TRACON and New York TRACON[6] facilities expressed more concerns about their working conditions than did the Jacksonville and Ft. Lauderdale terminals. We plan to issue a report later this year that shows the variances between facilities.

IMPORTANCE OF HUMAN RELATIONS AND MODERNIZATION INITIATIVES

FAA's human resource and modernization initiatives are important. We believe that these initiatives get at some of the root causes of the problems facing today's air traffic system. These initiatives include, among other things, improving its recruitment, hiring, and training techniques. For example, in September 1988, FAA streamlined its hiring process for air traffic controllers, which should reduce its hiring time. The FAA Administrator also announced a series of initiatives aimed at "revolutionizing" the way FAA trains air traffic controllers. These initiatives, which will be ongoing through the 1990s, include training professional instructors, using state-of-the-art training technology, and redesigning the training curriculum.

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[6] Terminal radar approach control facility.

Where modernization initiatives have come to fruition, such as the installation of the Host computer, controllers have noticed. However, these are long-term initiatives that need to be sustained. While our reports have endorsed these initiatives, we have also reported (see app. I) that they were long overdue and have made recommendations to improve them.

More importantly, however, FAA has yet to come to grips with what we see as a major problem--the perception gap between facility managers and the rest of the work force. Until that gap is closed, human resource efforts will not likely produce the results that FAA clearly needs.

CONCLUSIONS

The 1988 perceptions of the air traffic work force show little change since our 1985 survey. Whatever changes FAA has made over the years, little overall movement in work force attitude has occurred. The Flight Safety Foundation evaluated the views of the working conditions and morale and found the margin of safety to be less than desirable and essentially unchanged from 1985. In saying "less than desirable," it is important to emphasize that the Foundation is not saying the system is unsafe.

While no quantitative assessment of safety can be realistically made, the results in our survey show how the people who control air traffic view the relative health of that system. Controllers in particular see problems in many areas that FAA facility managers do not see. Despite the facility managers' response, FAA headquarters has recognized the need for improvement and has planned or undertaken initiatives that will require time to bring about changes. However, FAA's initiatives have not bridged the perception gap between facility managers and their controllers and supervisors. That gap must be addressed if FAA wants to improve management of its human resources.

Finally, we believe the survey data offer considerable potential for use by FAA as a management tool both for systemwide and facility-specific analysis. In the next step of our work, we plan to further analyze the specific facilities that expressed the greatest concern about the various working conditions, such as traffic volume and staffing. By focusing on individual facilities, we hope to provide FAA with specific facility data to help it close the gap between its facility managers and controllers and address the specific causes for concern.

Mr. Chairman, that concludes my statement. I would be happy to answer any questions you may have.

RELATED GAO PRODUCTS

Aviation Safety: Conditions Within the Air Traffic Control Work Force (GAO/RCED-89-113FS, Apr. 24, 1989).

Aviation Safety: Serious Problems Continue to Trouble to Air Traffic Control Work Force (GAO/RCED-89-112, Apr. 21, 1989).

FAA Training: Continued Improvements Needed in FAA's Controller Field Training Program (GAO/RCED-89-83, March 29, 1989).

Challenges Facing Today's Air Traffic Control System (Video, Nov. 1, 1988).

FAA Staffing: Recruitment, Hiring, and Initial Training of Safety-Related Personnel (GAO/RCED-88-189, Sept. 2, 1988).

FAA Staffing: Improvements Needed in Estimating Air Traffic Controller Requirements (GAO/RCED-88-106, June 21, 1988).

FAA Staffing: FAA's Definition of Its Controller Work Force Should Be Revised (GAO/RCED-88-14, Oct. 23, 1987).

FAA Staffing: Challenges in Managing Shortages in the Maintenance Work Force (GAO/RCED-87-137, Sept. 25, 1987).

Aviation Safety: Needed Improvements in FAA's Airline Inspection Program Are Underway (GAO/RCED-87-62, May 19, 1987).

FAA Staffing: Air Traffic Controllers' Work Load and Operational Performance (GAO/RCED-87-138FS, May 6, 1987).

FAA Staffing: The Air Traffic Control Work Force Opposes Rehiring Fired Controllers (GAO/RCED-87-32BR, Oct. 9, 1986).

Aviation Safety: Serious Problems Concerning the Air Traffic Control Work Force (GAO/RCED-86-121, Mar. 6, 1986).

(341216)

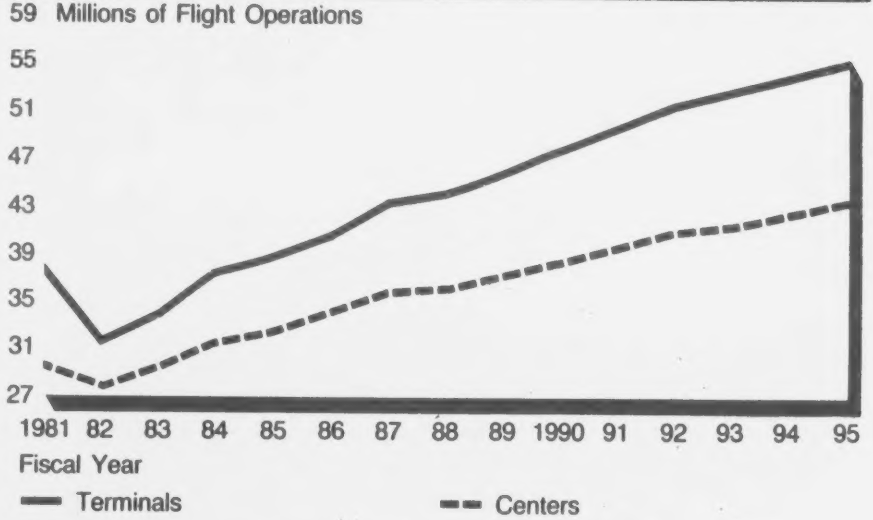
GAO The Controller Work Force

	July 31, 1981	FY 1985	FY 1987	FY 1988
Controllers				
FPLs	13,205	8,315	9,798	9,858
Developmentals	3,039	4,217	4,186	4,579
Subtotal	**16,244**	**12,532**	**13,984**	**14,437**
Air traffic assistants	0	1,466	1,449	NA
First-line supervisors	NA	NA	NA	1,999
Total	**16,244**	**13,998**	**15,433**	**16,436**

NA = Not applicable

Note: Prior to FY 1988, the definition of the controller work force differed.

GAO Air Traffic Activity



At terminals, flight operations mean instrument operations. At centers, flight operations mean Instrument Flight Rules aircraft handled.

FAA estimated data for fiscal years 1988 through 1995.

Chart 3

GAO Current Shortage of FPLs and Developmentals

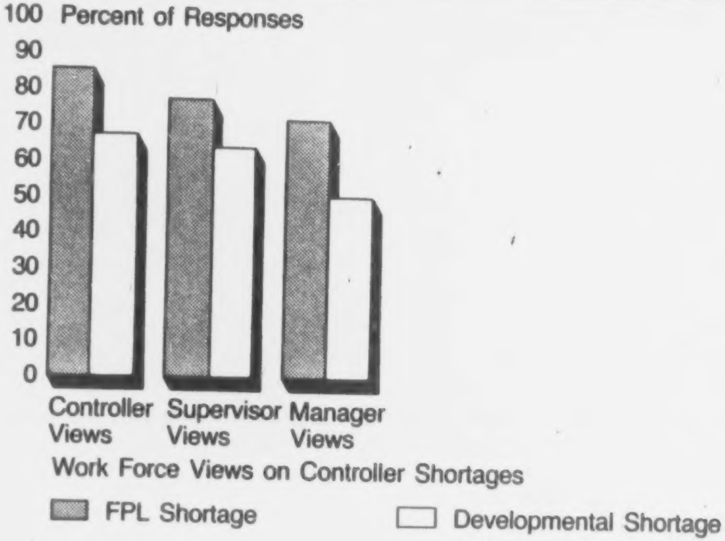


Chart 4

GAO Controllers Handle Too Much Traffic

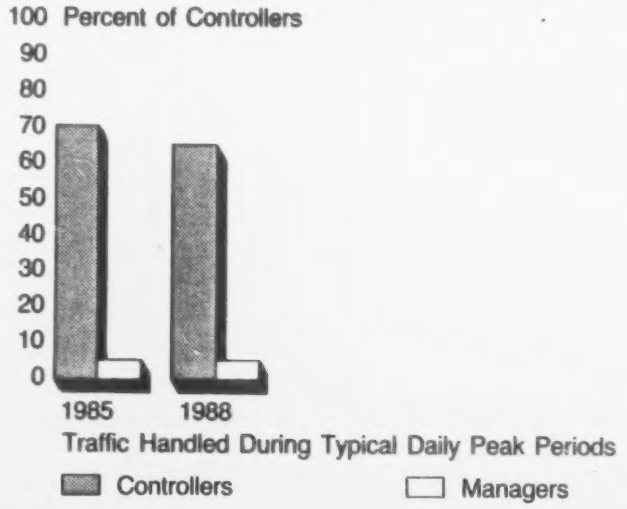


Chart 5

GAO Working Continuously for More Than 2 Hours During Peak Periods

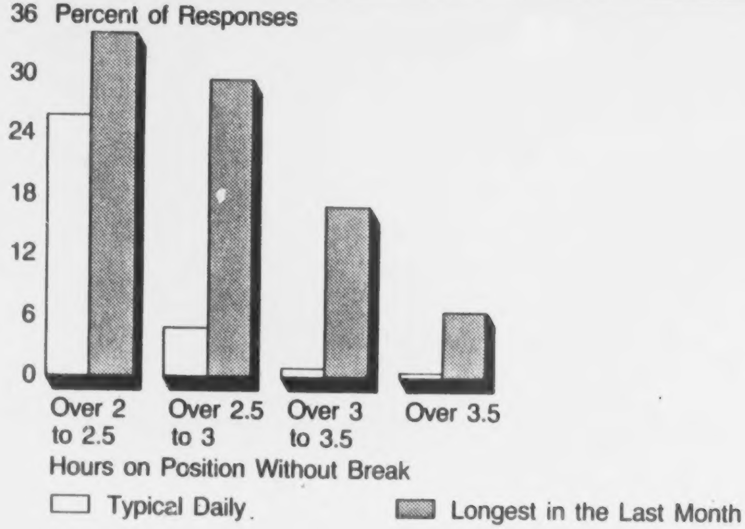
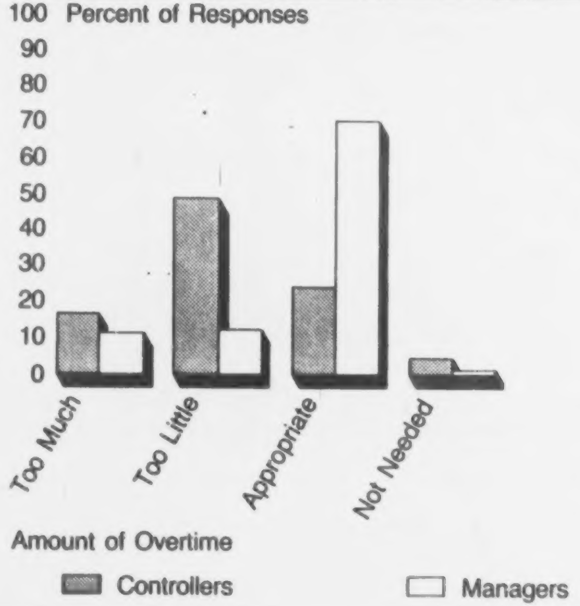


Chart 6

GAO Current Facility Overtime Condition



GAO Quality of Developmental Training–Extent Considered Inadequate

	Percent responding "less than adequate" or "poor"			
Training aspect	**FPLs**	**Developmentals**	**Supervisors**	**Managers**
Using backup systems	61	58	47	10
Controlling traffic in bad weather	59	39	41	2
Emergency procedures	58	43	42	4
Holding patterns	57	41	45	6
Handling heavy traffic	36	19	21	3

Chart 8

GAO View of Controller Morale

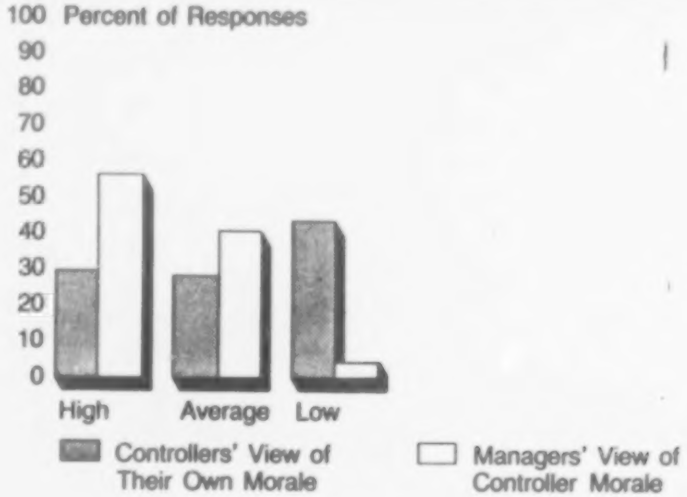


Chart 9

GAO View of Supervisor Morale

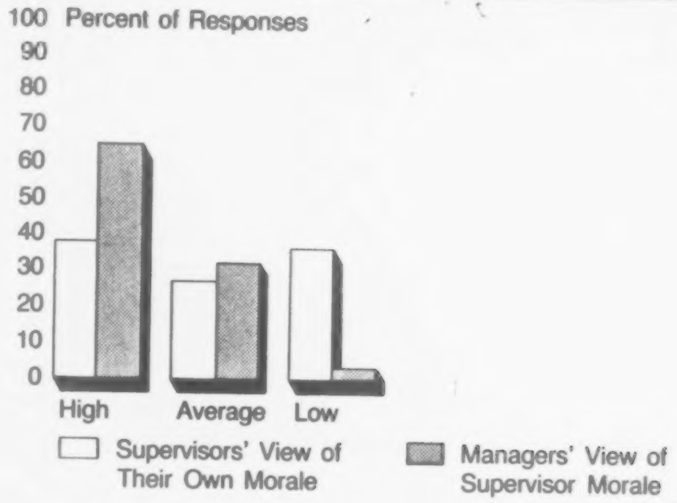
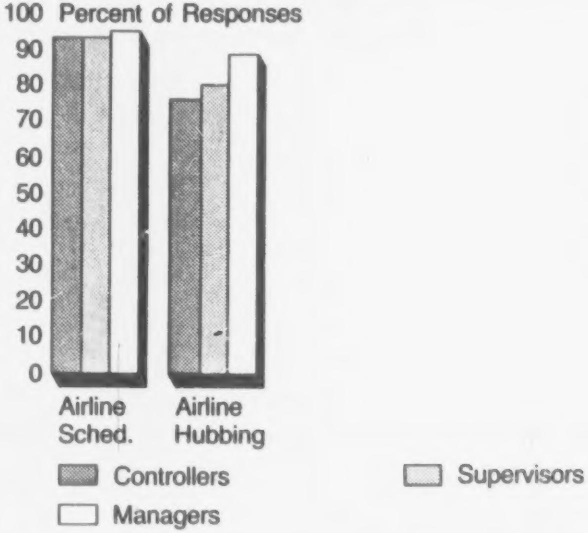
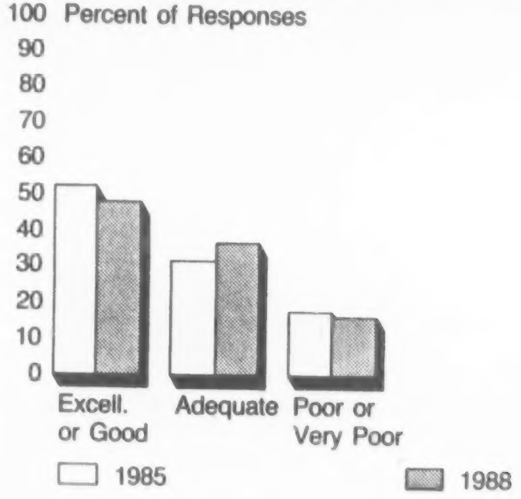


Chart 10

GAO Airline Scheduling and Hubbing Hinder Traffic Flow



GAO Controllers' Overall View of Safety Has Not Improved



GAO Factors That Hinder System Safety

Factor	Percent of response		
	Controllers	Supervisors	Managers
Amount of traffic work load	76	70	42
Controller morale	73	59	21
Number of FPLs	66	56	35
Hardware reliability	62	45	29
Software reliability	54	40	13
Developmentals' skill level	47	43	13
Amount of overtime being worked	47	40	21
Number of developmentals	46	46	23

GAO RESPONSES TO AIR TRAFFIC CONTROL WORK FORCE QUESTIONS OF CHAIRMAN GLENN M. ANDERSON TO BE SUBMITTED FOR THE HEARING RECORD OF MAY 25, 1989

Survey results in GAO's reports and testimony are generally shown for all controllers, which includes FPLs and developmentals. Can you highlight for key questions, how developmentals responded compared to FPL controllers?

O response:

Generally speaking, the responses of developmental and full performance level controllers did not vary greatly, as can be seen in the following responses to selected key questions. (Percentages may not add to 100 because of rounding.)

GAO response to Chairman Anderson's first question:

Responses in percent

Question	Developmentals	FPLs
Controller survey question 2: Consider the complexity of the sectors you work and your capabilities as a controller. While working radar during typical daily peak periods, do you believe you are typically required to handle more traffic than you should be handling, less traffic than you should be handling, or an appropriate amount of traffic?		
1. Much more than I should be handling	10	12
2. Somewhat more than I should be handling	56	53
3. Appropriate level of traffic	34	33
4. Somewhat less than I should be handling	0	3
5. Much less than I should be handling	--	0
Total	**100**	**100**
Estimated respondents	517	4,793
Controller survey question 9: Do you believe the amount of time you are typically required to continuously work a position without a break during peak periods is too long, too short, or appropriate?		
1. Much too long	10	14
2. Somewhat too long	45	45
3. Appropriate	44	41
4. Somewhat too short	1	1
5. Much too short	--	0
Total	**100**	**100**
Estimated respondents	517	4,765

NOTE: (1) Estimated respondent universe is the actual number of developmental and full performance level controllers at level 4 and 5 terminals who responded and our estimate of the number of center controllers who would have responded had they received questionnaires. Center controllers were sampled and results calculated using appropriate projections.

Responses in percent

Question	Developmentals	FPLs
Controller survey question 11: In your opinion, is the current number of staff available for each of the following types of positions higher than needed, lower than needed, or at the appropriate level? If you work at a center, answer for your area of specialization; if you work at a terminal, answer for your schedule.		
FPLs		
1. Much higher than needed	0	0
2. Somewhat higher than needed	0	2
3. Appropriate number	14	14
4. Somewhat lower than needed	48	48
5. Much lower than needed	38	36
Total	100	100
Estimated respondents	517	4,790
Controller survey question 12: In your opinion, do you currently have too many, too few, or an appropriate number of developmental controllers to meet future controller needs? If you work at an enroute center, answer for your area of specialization; if you work at a terminal, answer for your schedule.		
1. Much too many	--	1
2. Somewhat too many	4	3
3. Appropriate number	41	28
4. Somewhat too few	39	45
5. Much too few	17	23
Total	100	100
Estimated respondents	517	4,775

Responses in percent

Question	Developmentals	FPLs
Controller survey question 17: Which of the following best describes the current situation in regard to overtime at your facility?		
1. Too much overtime is assigned so that our personnel are overworked	18	17
2. Too little overtime is allowed so that we cannot cover training, leave, and other duties	47	50
3. Overtime assignments are appropriate at this time	28	23
4. No overtime assigned here; no overtime needed	2	4
5. Other	4	7
Total	100	100
6. No basis to judge[a]	8	5
Estimated respondents	469	4,500
Controller survey question 19: How do you rate the quality of the on-the-job training developmental controllers currently receive at your facility in each of the following areas?		
Using backup systems		
1. Excellent	1	1
2. Good	10	8
3. Adequate	31	30
4. Less than adequate	37	39
5. Poor	21	22
Total	100	100
6. No basis to judge[a]	1	3
Estimated respondents	510	4,566

---

[a] The categories totaling 100 percent do not include these responses.

Responses in percent

Question	Developmentals	FPLs
Controlling traffic in bad weather		
1. Excellent	2	2
2. Good	21	11
3. Adequate	37	27
4. Less than adequate	29	41
5. Poor	10	19
Total	**100**	**100**
6. No basis to judge[a]	2	2
Estimated respondents	503	4,616
Emergency procedures		
1. Excellent	2	1
2. Good	16	8
3. Adequate	40	33
4. Less than adequate	33	39
5. Poor	10	19
Total	**100**	**100**
6. No basis to judge[a]	2	3
Estimated respondents	507	4,571
Holding patterns		
1. Excellent	5	2
2. Good	15	8
3. Adequate	39	32
4. Less than adequate	29	35
5. Poor	12	22
Total	**100**	**100**
6. No basis to judge[a]	6	8
Estimated respondents	482	4,302

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[a] The categories totaling 100 percent do not include these responses.

Responses in percent

Question	Developmentals	FPLs
Controller survey question 21: Do you believe developmental controllers are provided with sufficient training involving live traffic before being certified on a position?		
1. Definitely yes	28	19
2. Probably yes	46	40
3. Uncertain	7	9
4. Probably not	14	20
5. Definitely not	6	12
Total	100	100
6. No basis to judge[a]	1	1
Estimated respondents	512	4,657
Controller survey question 26: How would you rate the overall safety of the ATC system today?		
1. Excellent	15	12
2. Good	40	35
3. Adequate	35	36
4. Poor	9	15
5. Very poor	1	2
Total	100	100
6. No basis to judge[a]	0	0
Estimated respondents	514	4,789

---

[a] The categories totaling 100 percent do not include these responses.

Responses in percent

Question	Developmentals	FPLs
Controller survey question 27: Please consider your own observations and experience for each of the factors listed below. Then indicate your opinion as to whether that factor is currently helping, is currently hindering, or currently has no impact on the maintenance of ATC system safety today.		
a. Current skill level of developmental controllers		
1. Strongly helps	8	4
2. Helps somewhat	27	19
3. No impact	31	28
4. Hinders somewhat	32	42
5. Strongly hinders	2	7
Total	100	100
Estimated respondents	514	4,772
b. Current number of developmental controllers available		
1. Strongly helps	3	1
2. Helps somewhat	25	16
3. No impact	35	37
4. Hinders somewhat	33	40
5. Strongly hinders	5	7
Total	100	100
Estimated respondents	516	4,777
c. Current number of FPL controllers available		
1. Strongly helps	11	6
2. Helps somewhat	17	15
3. No impact	9	12
4. Hinders somewhat	45	43
5. Strongly hinders	18	24
Total	100	100
Estimated respondents	514	4,782
d. Current amount of traffic work load		
1. Strongly helps	1	1
2. Helps somewhat	5	4
3. No impact	14	19
4. Hinders somewhat	56	51
5. Strongly hinders	25	25
Total	100	100
Estimated respondents	513	4,761

Responses in percent

Question	Developmentals	FPLs
e. Current amount of overtime being worked		
1. Strongly helps	1	1
2. Helps somewhat	6	6
3. No impact	45	47
4. Hinders somewhat	39	34
5. Strongly hinders	10	12
Total	100	100
Estimated respondents	504	4,754
f. Current hardware reliability		
1. Strongly helps	5	7
2. Helps somewhat	15	16
3. No impact	15	16
4. Hinders somewhat	41	36
5. Strongly hinders	23	25
Total	100	100
Estimated respondents	514	4,781
g. Current software reliability		
1. Strongly helps	5	7
2. Helps somewhat	20	20
3. No impact	19	19
4. Hinders somewhat	37	35
5. Strongly hinders	20	19
Total	100	100
Estimated respondents	513	4,777
h. Current controller morale		
1. Strongly helps	4	2
2. Helps somewhat	14	10
3. No impact	14	14
4. Hinders somewhat	44	45
5. Strongly hinders	23	29
Total	100	100
Estimated respondents	513	4,782

	Responses in percent	
Question	Developmentals	FPLs
Controller survey question 28: In general, how would you describe your morale as a controller at this facility?		
1. Very high	9	7
2. High	30	21
3. Neither high nor low	31	27
4. Low	22	30
5. Very low	8	15
Total	100	100
6. Uncertain[a]	2	1
Estimated respondents	501	4,723

---

[a] The categories totaling 100 percent do not include these responses.

2. Are you aware of any FAA initiatives that will directly address the perception differences between controllers and managers? How would you suggest FAA go about trying to bridge the perception gap?

GAO response:

We are not aware of any FAA initiatives directly aimed at bridging the perception gap between controllers and managers. However, FAA does use an employee survey to enhance communications with its employees. Specifically, FAA recently used a survey-feedback-action questionnaire to enhance communications between employees and their immediate supervisors. This effort did not measure controllers and managers attitudes toward operational tasks. Further, one positive sign that FAA management is attempting to close the manager-controller perception gap recently occurred. FAA invited us to make a presentation at their annual facility managers' conference. This conference was held on June 12 - 16, 1989 in Scottsdale, Arizona, and gave us the opportunity to compare and contrast facility data for FAA's air traffic managers. We believe that FAA can continue to bridge the perception gap by further opening the lines of communication between controllers and facility managers, and using our facility-specific data as the basis for those discussions.

3. A large number of controller retirements was an issue that GAO emphasized three years ago. Do you have retirement data that you can share to update us on this issue?

GAO response:

Our 1988 survey suggests that the retirement issue remains a matter of concern since it can affect FAA's ability to increase the number of controllers, especially experienced controllers. FAA data shows that 516 FPL controllers and 547 first line supervisors at all centers and terminals were eligible to retire as of September 30, 1988. FAA projects its annual retirements based on its historical experience that about 20 percent of those eligible to retire actually do so. It should be recognized that (1) FAA has, in fact, revised upward its projected retirements from the lower figures it used in 1985, and (2) historical retirement experience can be a valid indicator. However, when asked about the future, our survey at the 84 largest facilities showed about 76 percent or 402 of the 529 controllers and 74 percent or 269 of the 363 supervisors eligible to retire now or within 2 years said they would definitely or probably retire.

4. In your testimony, you stated that the results of your surveys varied among individual facilities. Can you elaborate further?

GAO response:

As mentioned in our prepared statement, Washington and Boston center controllers expressed more concern about their working conditions than did Minneapolis and Albuquerque center controllers in such areas as air traffic handled, time continuously worked on position, controller staffing, safety, and morale. Similarly for these same areas, the Phoenix terminal radar approach control (TRACON) facility and New York TRACON controllers expressed more concerns about their working conditions than did the controllers at Jacksonville and Fort Lauderdale terminals. Summarized controller responses to specific questions for the eight facilities follows. (Percentages may not add to 100 because of rounding.)

GAO response to Chairman Anderson's fourth question:

Responses in percent

	CENTERS			
Question	Washington	Boston	Minneapolis	Albuquerque
Controller survey question 2: Consider the complexity of the sectors you work and your capabilities as a controller. While working radar during typical daily peak periods, do you believe you are typically required to handle more traffic than you should be handling, less traffic than you should be handling, or an appropriate amount of traffic?				
1. Much more than I should be handling	22	22	3	6
2. Somewhat more than I should be handling	66	64	30	29
3. Appropriate level of traffic	10	15	58	55
4. Somewhat less than I should be handling	2	--	10	9
5. Much less than I should be handling	--	--	--	1
Total	100	100	100	100
Controller survey question 9: Do you believe the amount of time you are typically required to continuously work a position without a break during peak periods is too long, too short, or appropriate?				
1. Much too long	30	39	5	1
2. Somewhat too long	57	49	19	33
3. Appropriate	13	12	74	65
4. Somewhat too short	--	--	2	1
5. Much too short	--	--	--	--
Total	100	100	100	100

Responses in percent

Question	CENTERS			
	Washington	Boston	Minneapolis	Albuquerque
Controller survey question 11: In your opinion, is the current number of staff available for each of the following types of positions higher than needed, lower than needed, or at the appropriate level?				
FPLs				
1. Much higher than needed	--	1	--	2
2. Somewhat higher than needed	--	--	9	10
3. Appropriate number	2	2	49	50
4. Somewhat lower than needed	36	36	37	35
5. Much lower than needed	62	62	5	2
Total	**100**	**100**	**100**	**100**
Controller survey question 26: How would you rate the overall safety of the ATC system today?				
1. Excellent	4	3	32	29
2. Good	19	19	39	34
3. Adequate	40	50	24	26
4. Poor	31	20	4	12
5. Very poor	7	9	--	--
Total	**100**	**100**	**100**	**100**

Responses in percent

Question	C E N T E R S			
	Washington	Boston	Minneapolis	Albuquerque
Controller survey question 28: In general, how would you describe *your* morale as a controller at this facility?				
1. Very high	3	2	19	10
2. High	11	10	35	31
3. Neither high nor low	19	32	28	33
4. Low	34	36	15	20
5. Very low	34	20	4	5
Total	100	100	100	100
6. Uncertain[a]	1	--	--	2

---

[a] The categories totaling 100 percent do not include these responses.

GAO response to Chairman Anderson's fourth question:

Responses in percent

	TERMINAL FACILITIES			
Question	New York	Phoenix	Jacksonville	Fort Lauderdale
Controller survey question 2: Consider the complexity of the sectors you work and your capabilities as a controller. While working radar during typical daily peak periods, do you believe you are typically required to handle more traffic than you should be handling, less traffic than you should be handling, or an appropriate amount of traffic?				
1. Much more than I should be handling	27	37	10	--
2. Somewhat more than I should be handling	59	53	35	25
3. Appropriate level of traffic	14	10	55	69
4. Somewhat less than I should be handling	--	--	--	6
5. Much less than I should be handling	--	--	--	--
Total	100	100	100	100
Controller survey question 9: Do you believe the amount of time you are typically required to continuously work a position without a break during peak periods is too long, too short, or appropriate?				
1. Much too long	19	17	5	--
2. Somewhat too long	51	57	55	50
3. Appropriate	30	27	40	50
4. Somewhat too short	--	--	--	--
5. Much too short	--	--	--	--
Total	100	100	100	100

Responses in percent

	TERMINAL FACILITIES			
Question	New York	Phoenix	Jacksonville	Port Lauderdale
Controller survey question 11: In your opinion, is the current number of staff available for each of the following types of positions higher than needed, lower than needed, or at the appropriate level?				
FPLs				
1. Much higher than needed	--	--	--	--
2. Somewhat higher than needed	--	--	--	6
3. Appropriate number	2	3	30	19
4. Somewhat lower than needed	24	60	50	69
5. Much lower than needed	74	37	20	6
Total	**100**	**100**	**100**	**100**
Controller survey question 26: How would you rate the overall safety of the ATC system today?				
1. Excellent	2	--	25	19
2. Good	31	27	40	56
3. Adequate	27	37	30	19
4. Poor	29	23	5	6
5. Very poor	11	13	--	--
Total	**100**	**100**	**100**	**100**
Controller survey question 28: In general, how would you describe your morale as a controller at this facility?				
1. Very high	6	--	30	7
2. High	20	10	40	27
3. Neither high nor low	26	21	20	33
4. Low	33	45	10	33
5. Very low	16	24	--	--
Total	**100**	**100**	**100**	**100**
6. Uncertain[a]	1	3	--	--

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[a] The categories totaling 100 percent do not include these responses.

5. In 1985, your survey was done at 74 facilities, whereas in 1988 it was done at 84 facilities. Why did you add more facilities in the 1988 survey?

GAO response:

Our 1988 survey included the 84 largest air traffic control facilities, consisting of all 20 air route traffic control centers in the continental United States and all 64 of the largest terminal facilities (level 4 and 5). The 1988 survey included ten more facilities than our 1985 survey because (1) air traffic volume had increased, resulting in FAA's including them in the group of largest facilities, or (2) FAA had reorganized some facilities by splitting them into two separate components.

GAO RESPONSES TO AIR TRAFFIC CONTROL WORK FORCE QUESTIONS OF REPRESENTATIVE GUY V. MOLINARI TO BE SUBMITTED FOR THE HEARING RECORD OF MAY 25, 1989

1. How did those responding to your survey suggest that they would resolve the chronic shortage of experienced air traffic controllers?

GAO response:

While we did not ask a specific question about how to resolve the experienced controller shortage, we did receive written comments suggesting that FAA should (1) provide incentives to attract experienced controllers to certain hard-to-staff facilities, (2) hire more retired controllers to fill staff positions, thus freeing more controllers now in these positions to control traffic, (3) rehire some of the fired controllers, especially at critically staffed facilities, and (4) hire more developmental controllers. In addition, two-thirds of the controllers responding to our survey believed that there were too few developmental controllers to meet future controller needs, and half of the facility managers agreed.

2. In your survey, do you have any figures on the number of controllers or supervisors who seek more overtime in order to increase their pay?

GAO response:

We did not ask controllers or supervisors about the effects of overtime on their pay. However, 22 percent of controllers who were working overtime said they were personally working less overtime than they wanted to work. In addition, 49 percent of controllers responding to our survey believed that too little overtime was allowed at their facilities to cover training, leave, and other duties. Supervisors accumulate compensatory time rather than extra pay for working overtime.

3. Could you give us an example of the lack of communication that you mention as a problem between controllers and managers in these FAA facilities?

GAO response:

An example of the difference in perceptions between controllers and their facility managers is the way morale is viewed. In response to our survey, 43 percent of controllers said their own morale was low while only 4 percent of facility managers said controller morale was low. In contrast, 29 percent of controllers said their morale was high compared with 56 percent of managers who said controller morale was high.

During his testimony at the May 25, 1989 hearing, the President of the National Air Traffic Controllers Association provided a good example of the communication problem. He said that FAA had implemented an order in November 1988 that provided controllers with full immunity when reporting operational errors. However, during his recent tour of 25 facilities around the country, he found that controllers did not know about the order. Controllers had not been briefed on it, and in some cases, the order was not even in the facility.

4. How does the lack of communication you describe impact safety?

GAO response:

One of the controllers responding to our survey provided an example of how poor communication can impact safety. The controller said:

> "...In one of our sectors we have seven routes from overseas converging at the same point a major departure route uses. This is compounded with a ... departure 6 miles south of this mess. The departures then fan out to overseas points. All this in one sector. It is a disaster waiting to happen. And no one will listen."

5. The FAA has often stated that their ability to keep traffic within safe limits is possible through their flow control system. Would you comment on the effectiveness of this procedure?

GAO response:

We did not review FAA's flow control system per se, but we did ask controllers and supervisors related questions. Eighty-six percent of controllers responding to our survey selected inadequate flow control procedures as a reason for handling more traffic than they felt they should during daily peak periods, and 76 percent of first line supervisors agreed. In addition, 31 percent of supervisors responded that FAA's Traffic Management Units have not helped them manage the volume of traffic that controllers they supervise are required to handle. (Traffic Management Units, which work with flow control, are assigned to centers and some terminals.)

One controller had the following to say about the ineffectiveness of flow control:

> "FAA has placed its hope on flow control/traffic management unit ... the danger here is that generally (flow control/traffic management units) only monitor certain flows, but the sectors controlling these flows might be saturated and almost out of control ... and many others that they do not watch or monitor. Traffic flows and restrictions must be adjusted..."

6. To what extent did questionnaire respondents provide written comments on work schedules? Were any of these related to safety? If so, please explain and provide a few examples that illustrate the major themes addressed.

GAO response:

We did not do a detailed content analysis of the written comments provided by questionnaire respondents. However, we did read each of the comments, and we did not find controllers relating work schedules to safety concerns.

7. Did GAO receive any written comments from questionnaire respondents regarding equipment problems? What types of equipment were discussed, and were any comments related to safety? If so, please explain and provide a few examples that illustrate the major themes addressed.

GAO response:

Once again, we did not quantify the written comments that questionnaire respondents provided. However, based on our reading of the comments, controllers are concerned about all types of equipment, such as communication radios, controller headsets, radar scopes, and computers. Some of the comments did relate inadequate equipment to safety concerns as the following examples illustrate, the first from a controller and the next two from supervisors.

> "Our equipment level is, in a word, prehistoric. We write our weather down on a piece of paper, and place it on our scopes. ... It is inconceivable to me that [one of the] busiest airports in the world ... can't get the state-of-the-art equipment it so desperately needs."

- - -

> "One of our biggest problems is radio equipment and coverage--they're old and fail way too often and the back-up systems that we're forced to use give poor coverage--totally unacceptable. ..."

- - -

> "Automation needs to be here right now! Basically we have no [backup to] primary radar or weather radar. The [radio] frequencies are very poor ..."

8. Controllers you surveyed stated that there is an insufficient number of air traffic assistants. Who picks up the slack left by this insufficient number of ATAs? Does the shortage of ATAs negatively impact the training opportunities for developmental controllers?

GAO response:

The ATA position was created by FAA after the 1981 controllers' strike to relieve FPL controllers of some routine tasks. Therefore, the current ATA shortfall must be picked up by controllers, both developmental and FPL. The issue of how ATA shortages affect developmental controller training opportunities was not part of our review.

9. In 1985 you recommended that the FAA restrict air traffic until the number of FPL controllers increased and overtime requirements decreased to meet FAA goals. Would you favor a restriction in air traffic today?

GAO response:

We decided not to make a specific recommendation in our report because FAA had already imposed air traffic restrictions at Chicago O'Hare airport terminal in response to the recent National Transportation Safety Board investigation. In addition, FAA had agreed to evaluate the need for similar air traffic restrictions at other crowded facilities. We believe proper evaluations of individual facilties and their specific operational situations are an appropriate approach for determining whether further restrictions are needed.

10. How did you come to the conclusion that despite the facility managers' response, FAA headquarters has recognized the need for improvement and has planned or undertaken initiatives?

GAO response:

We came to the conclusion that FAA recognized the need for improvement because it has planned or undertaken several nationwide initiatives to increase its work force and improve working conditions. For example, FAA plans to improve its recruitment and hiring techniques by establishing a national recruitment team and upgrading its advertising and recruitment materials. In September 1988, FAA streamlined its hiring process for air traffic controllers, which should reduce its hiring time. The FAA Administrator also announced a series of initiatives aimed at revamping the way FAA trains air traffic controllers by using state-of-the-art technology and training methods. In addition, a pay demonstration project is planned to provide up to 20-percent bonus pay to FAA staff performing safety-related functions at hard-to-staff facilities in such areas as Chicago, Los Angeles, and New York. These are long-term initiatives that will require time to bring about needed changes.

11. Are you aware of any FAA initiatives that will directly address the perception differences between controllers and managers? How would you suggest FAA go about trying to bridge the perception gap?

GAO response:

We are not aware of any FAA initiatives directly aimed at bridging the perception gap between controllers and managers. However, FAA does use an employee survey to enhance communications with its employees. Specifically, FAA recently used a survey-feedback-action questionnaire to enhance communications between employees and their immediate supervisors. This effort did not measure controllers and managers attitudes toward operational tasks. Further, one positive sign that FAA management is attempting to close the manager-controller perception gap recently occurred. FAA invited us to make a presentation at their annual facility managers' conference. This conference was held on June 12 - 16, 1989 in Scottsdale, Arizona, and gave us the opportunity to compare and contrast facility data for FAA's air traffic managers. We believe that FAA can continue to bridge the perception gap by further opening the lines of communication between controllers and facility managers, and using our facility-specific data as the basis for those discussions.

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J.R. Reidmeyer
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June 13, 1989

Mr. Guy V. Molinari
Committee on Public Works and
Transportation
101st Congress
U.S. House of Representatives
Room 2165, Rayburn Building
Washington, D.C. 20515

Dear Mr. Molinari:

The following are your additional questions and the responses of the Flight Safety Foundation relative to the May 25, 1989, hearing on the status of the U.S. Air Traffic Control Systems:

1) Is the disparity of controller/supervisor and management views a serious problem? What impact does this disparity have on safety?

Answer. As you are aware, the Flight Safety Foundation was directly involved in a safety assessment of the U.S. Air Traffic Control System in 1981 (post strike) and as a consultant to the GAO in their assessments of the system in 1985 and 1988. The constant thread throughout these assessments, and reportedly prior to 1981, has been the vast difference in working environment perceptions as viewed by controllers versus the views of management. These differences add to the frustration of the controllers, which can reduce their efficiency, thereby increasing the probability of a reduction of the margin of safety. The impact of this situation cannot be quantified; however, in the view of Flight Safety Foundation, if the potential for increased risk is present, it should be addressed.

2) Over fifty percent of controllers responded that while working daily peak traffic periods they "occasionally" to "very often" decline user requests for services such as direct routes and altitude changes, decline to provide traffic advisories, decline to provide weather advisories, and provide another aircraft with instructions without waiting for the first aircraft to acknowledge receipt of its instructions. As an evaluator of safety, what impact do these actions have on safety?

Answer. All factors mentioned in the preceding question provide the potential for reducing the margin of safety and increasing the potential for the occurrence of an undesirable event. This is especially of concern since a common reason for not providing these additional services is because of increased workload due to the high traffic activity...a time when the users of the system may need more assistance.

An International Organization for Everyone Concerned with the Safety of Flight

3) The Foundation has stated that conditions overall at terminals appear to have worsened more than at centers. Can you tell us in what areas you thought conditions were worse? Do you have any suggestions for FAA as to what to do to solve their problems? Do you have a view as to why this may have happened?

Answer. As GAO stated in their testimony, their follow-up efforts will identify, specifically , the areas where the worst problems exist. This will be valuable information for the FAA in addressing the potential problems identified in the GAO report.

The first step in the solution to any problem is the acknowledgement that a problem exists. The difference in viewpoints between controllers and management is probably a factor in preventing this initial step.

The GAO report on their 1985 assessment of the ATC system showed that, in general, more problems existed in the enroute centers than in the terminal areas. A reversal of this situation since then may mean that the FAA, in their efforts to reduce the problems in the centers, may have unintentionally done so at the expense of the terminal facilities.

We hope these responses satisfy the provided inquiries.

Sincerely,

Ed Wood

Ed Wood
Director of Engineering

Mr. **Anderson**. It has been suggested because we do have two other panels following this that we recess now and go to lunch. As far as I am concerned, this first panel is completed. I want to thank you very much for your participation today.

At this time, then, we will recess until we come back at 1:00 o'clock, so we can get perhaps a little lunch. At that time, we will hear the air traffic controllers and the Federal Managers Association and then following that, we will hear from the FAA.

At this time, we will recess until 1:00 o'clock.

[Whereupon, at 12:25 p.m., the subcommittee recessed to reconvene at 1:00 p.m., the same day.]

Mr. **Anderson**. The committee will come to order. We are starting with our second panel, which consists of Mr. R. Steve Bell, the president of the National Air Traffic Controllers Association, accompanied by Air Traffic Control Specialists, Mr. Joe Bellino from Chicago O'Hare TRACON; Mr. Randy Moore of the Coast TRACON, El Toro, California; Mr. Kevin Aurandt from the Boston Center; and Mr. Michael Connor, chairman of the Federal Aviation Administration Conference, accompanied by Mr. Jim Houde, the vice chairman, and Mr. Kenneth Dollard, the chapter president of New York ARTCC. I think that is every one of them.

Could you stand up and raise your right hand?

[Witnesses sworn.]

Mr. **Anderson**. Mr. Bell, I have you down here as first, so unless you have some other reason, you are number one.

TESTIMONY OF R. STEVE BELL, PRESIDENT, AIR TRAFFIC CONTROLLERS ASSOCIATION, ACCOMPANIED BY JOE BELLINO, CHICAGO O'HARE TRACON; RANDY MOORE, COAST TRACON; KEVIN AURANDT, BOSTON CENTER; AND MICHAEL CONNOR, CHAIRMAN, FEDERAL AVIATION ADMINISTRATION CONFERENCE, FEDERAL MANAGERS ASSOCIATION, ACCOMPANIED BY JIM HOUDE, VICE CHAIRMAN, AND KENNETH DOLLARD, CHAPTER PRESIDENT, NEW YORK AIR ROUTE TRAFFIC CONTROL CENTER

Mr. **Bell**. Thank you, Mr. Chairman.

Good afternoon. Mr. Molinari, good to see you again. My name is Steve Bell and I am president of the National Air Traffic Controllers Association (NATCA). Accompanying me are Mr. Joseph Bellino, NATCA Great Lakes Region Representative and an FPL Controller at O'Hare TRACON, Randy Moore, an FPL Controller at Coast TRACON, located at El Toro Marine Base in California; and Kevin Aurandt, an FPL Controller at Boston En Route Center. Until August last year, I was an FPL at the New York TRACON.

NATCA welcomes this opportunity to comment on the GAO's report, which in our opinion provides an excellent snapshot of current Controller working conditions. Although NATCA has not had the opportunity to poll its membership in such a detailed and scientific manner, we find that the report bears out many of our worst suspicions and fears. Although some beneficial changes have been made at the national level, very little has been accomplished at the regional or local level.

The FAA has a largely tired and demoralized work force that is fed up with the empty promises that have been served up for the last eight years. It all boils down to business as usual, and it is a very poor way of doing business.

The first three areas the GAO addresses are closely related: staffing, time opposition and overtime. FAA claims the work force has been rebuilt to pre-strike levels. I cannot find anyone else who believes this. The Controllers working air traffic most certainly do not. Eighty-five percent of the surveyed Controllers wanted more full performance level Controllers.

Also, we find the FAA is trying to get away from the term FPL and use a new term, Operational Controller. This individual does not have the flexibility, let alone the knowledge and experience that a full performance level Controller FPL possesses. Therefore, he or she cannot jump into every position in a sector when, for example, an FPL is sick or on leave or a situation develops that requires immediate help to the radar Controller.

Controller shortages also have a direct impact on time on position. In our new three-year contract with the FAA, we successfully fought to get language included that provides for a break after two hours on position during which no other duties may be assigned. However, Article 33 is prefaced by the term "when operational requirements permit." NATCA would have preferred to omit that caveat, but the FAA said they needed it for those rare instances when air traffic activity was unpredictably extreme.

We are going to watch very carefully to see managers comply with the intent of the article. If not, we will file a grievance against the FAA that will, in turn, provide a record of where, why and when these situations occurred. A pattern of denial of breaks from position indicates the facility is either understaffed and/or is not being managed properly.

I want to make it perfectly clear that NATCA is not out to pick a fight with the FAA. It is our view that competent managers will comply with the article because it is fairly easy to abide by if they take an active role in managing a facility as compared to sitting back or letting Controllers work too long on position.

The FAA's treatment of overtime particularly irks NATCA. Once again the agency is engaging in a public relations game. The FAA has tried to artificially drive down overtime figures by cutting back on overtime budgets. If you do not have overtime to give, then you can report back to the Congress that overtime has been dramatically reduced.

It does not mean, however, that the need for overtime still does not exist. It most certainly does for peak traffic periods, training and leave.

The fourth area the GAO tackles is quality of training of developmentals. We are aware that the FAA has a great deal of faith in the use of simulators, but most Controllers are highly skeptical they will deliver all that the agency promises.

Most Controllers still believe there is ~~no real~~ substitute for on-the-job training, which is now limited by the availability of overtime.

NATCA worries that quality and experience might be sacrificed for expediency. The survey also bears out that many Controllers are unhappy with some crucial areas of training. If you want training to be better, we are going to have to bite the bullet and pay for the overtime.

As far as NATCA is concerned, contract training is a total wash. Most FPL Controllers view it as cronyism or Beltway banditry at its worst. Our members complain about the quality of the teachers and that the trainer's knowledge is often dated.

Perhaps the most disturbing aspects of the GAO's report involves morale and management perception of Controller morale. Managers are seemingly oblivious to the internal discord that racks the ATC work force. It is as if FAA managers are absentee landlords who had no idea what their tenants are complaining about.

There are many contributing factors: promises never delivered upon, indifferent management, overwork, a demeaning and degrading drug testing program that assumes guilt; hardware that does not work, software which malfunctions and the inability to schedule leave.

The last area the GAO addresses is the Controllers' perception of air safety. The GAO found that a vast majority of Controllers believe that the ATC system is safe, but most would say there is room for improvement. We would agree.

The ATC system is safe, but there are still gaps in the so-called safety net that should be closed, such as providing for more reliable equipment and more FPLs, improving morale and setting a reasonable traffic workload.

NATCA sincerely appreciates this opportunity to press its views on the GAO Controller survey. We wish we could say conditions have greatly improved since the 1986 survey, but obviously they have not.

NATCA has promised to work as partners with the FAA and we will continue to do so. We have a good relationship with the FAA in Washington, but we still have a lot of hard work ahead of us before we can expect to see some significant changes on the regional and local level.

Thank you, Mr. Chairman. I would be happy to answer any questions you have.

Mr. ANDERSON. Thank you, Mr. Bell.

Mr. Connor, I believe you have a prepared statement, don't you?

Mr. CONNOR. Yes, sir, Mr. Chairman. Thank you for inviting us to testify.

Mr. Molinari, good afternoon, sir.

I would like to have my testimony in the record, and what I will do is summarize in the interest of time, sir.

The FAA Conference has been in existence since about 1978. One of the things that we find in the GAO study that is important is the shortage of FPLs and the number of aircraft. Those things drive everything else that is found in the GAO report.

We believe that the FAA has identified those critical facilities. The pay demonstration project speaks to the difficulty in staffing those facilities with experienced air traffic control personnel. We believe that the Congress should fully support the pay demonstration project.

Also, we asked GAO when they reported to us or gave us a briefing on their report, we said, what would happen if you took the facilities identified in the pay demonstration project out of your survey? What would the numbers look like in terms of morale, in terms of working position too long, the number of aircraft involved?

We also suggested to them at the time that they identify facilities that are doing an excellent job. Let's compare those facilities to the ones that are having difficulty. Let's find out why these conditions exist in the facilities across the United States, whether they be Chicago O'Hare or Los Angeles or Norfolk, Virginia.

Also, when we talked to the GAO we identified certain conditions in the work force. We are having problems attracting quality people to the air traffic control profession. Are the factors behind this problem strictly driven by government or are they external or driven by the FAA or are they external to the FAA? Is it matters of pay, low self-esteem of government workers, benefits?

We talked about supervisors. A number of supervisors are eligible to retire. The number-one complaint of supervisors in the FAA is the change in the lump-sum benefit program. If that changes in a negative way, you will find the majority of those 30 percent retire. They will be driven out. They would like to stay and support the system and transfer the expertise to the new generation that sits to the left.

The manager controller views—interesting subject. Certain facilities, certain levels within the FAA work quite well. We have a number of people within FAA who will get up and speak to any group and discuss any issue in an open and candid manner.

We need to identify those facility managers and senior executives. We need to have the rest of the FAA emulate their professional standards. Where we find facility managers or other people are not performing to the level we need, to have an opportunity for them to reform; if not, then remove them from the system.

Again, the pay demonstration project is the problem of the facilities driven by budget and staffing. Budget and resources go back to the facility manager's comments. Are they saying, I do not have enough people and I do not have enough money to run my facility? Isn't that a common theme with the controllers of too many airplanes and too few FPLs.

What we need to do is allow the pay demonstration to work, assess the program, see whether it works well, where it needs to be modified. Also, we need to lay down the GAO report, with the success of the pay demo, I think will come and also the internal evaluations done by the FAA. They can identify the facilities that have problems and somewhere in between the controllers and the facility managers and the supervisors and the senior executives assistants.

The key to the whole issue, sir, is communications within the FAA. I am confident we have people that will communicate at all levels and in doing so, we will resolve the problems of the air traffic control system.

Thank you.

Mr. ANDERSON. Thank you, Mr. Connor.

Mr. Bell, I understand that the gentlemen accompanying you, most of them, do not have prepared statements. But would the work controllers please introduce themselves and tell us about their background in air traffic control work?

Mr. **Aurandt.** My name is Kevin Aurandt. I am a Controller and a facility representative at the Boston Air Route Traffic Control Center in Nashua, New Hampshire. My prior experience was four years in the military prior to the PATCO action, and I subsequently was hired on with the FAA approximately five years ago, and have been a full-level performance Controller for roughly a year and a half at the Boston Center.

Mr. **Anderson.** Thank you.

Mr. **Moore.** I am Randy Moore, full performance level Controller at Coast TRACON, also local representative of NATCA there. I had 10 years' experience in the Air Force, and have been on with Coast Approach since December of 1983.

Mr. **Bellino.** My name is Joseph Bellino. I am a full performance level Controller at Chicago O'Hare's TRACON. I am the regional representative for the Great Lakes Region with the National Air Traffic Controllers Association.

I became an Air Traffic Controller with the United States Army in 1965. I joined the FAA in September of 1968 and became an FPL at O'Hare in 1971.

Mr. **Anderson.** NATCA's executive vice president recently returned from a five-week, 22-city tour to brief your membership on the new contract. What did he tell you about the work force morale based on that trip?

Mr. **Bell.** Well, Mr. Chairman, I accompanied the vice president on that five-week tour. We started out the last part of February and traveled the entire month of March. We visited 25 center areas around the country. We went out there to brief controllers so they could make an objective decision as to whether or not to ratify our contract.

We found that our members and Controllers who attended the meetings had a lot of concerns to bring forward. I was quite disheartened to find out that morale and problems with respect to staffing, equipment, interaction between the facility manager and the NATCA representative, and controllers in general, were poor in many facilities. We did not get a picture that the situation was improving.

What we got was a picture of a situation that was deteriorating. That, of course, was very unpleasant to hear, seeing as we had worked very hard as an organization to interface and to work and promote good relationships at all levels of the union and the FAA.

There was a broad spectrum of complaints that we heard which we put in our long statement in our testimony, which really mirrors what the GAO spoke to this morning.

Mr. **Anderson.** Regarding working conditions, do you find any difference between the perceptions of pre-strike controllers and those hired after the strike?

Mr. **Bell.** Well, perhaps if you wouldn't mind, sir, I could let Mr. Bellino comment on that. He is a pre-strike Controller. He could give that perception. I am not. I am a veteran 14-year controller, but most of that time was in the military and a private company. I came into the FAA in 1982. Mr. Bellino, would you like to comment?

Mr. **Bellino**. Well, my pre-strike experience—at the time of the strike I was on medical leave—was that the Controllers over all felt that they could not be heard by FAA management.

They would express their concerns; they would express their problems, and they felt a great deal of frustration. That frustration is with an entirely new set of individuals. Most of the people surveyed in the GAO survey were probably three years or less with the agency, possibly four years. Nevertheless, with such a short period of time with the FAA, they already are feeling frustration.

Now the difference between the pre-strike Controllers and the Controllers today is that this group, because they are new hirees, are relatively young. They have a higher tolerance level perhaps because of their youth, but the frustration is still there, and the traffic continues to increase, and they still see the same problems.

Mr. **Anderson**. I would like to address my next question to the working controllers and supervisors. My question is, do you feel pressure to increase the capacity of the system?

Mr. **Bellino**. Always. You always feel pressure. We at O'Hare have many times where controllers are going way over accepting traffic, I don't care what you say about flow control, and with flow control, supervisors prefer not to go into hold.

There is a great deal of pressure. Somebody with my experience won't be overwhelmed, but a Controller who has been an FPL for a year or two years, has initial gut reaction to go into hold. He is told not to go into the hold, and that has happened a number of times.

Hopefully that will cease, but I think you are still going to have controllers that will agree with flow control, that we have got it all under control, and that's not the case all the time.

Mr. **Anderson**. Do the other controllers want to comment on the same question?

Mr. **Moore**. Yes. At Coast Approach, there is pressure to accept more work load. Look at STAR, the Southern California Terminal Airspace Realignment Project. It is due to go in effect July 5th. There's a lot of bad feelings on that from the Controllers being pressured into training on new sectors, the additional knowledge required, and procedures.

Mr. **Anderson**. What do you think the answer would be in those parts of the country where there isn't really any threatened growth?

Mr. **Moore**. I'm sorry?

Mr. **Anderson**. Well, where things are pretty stable, where there is not much growth. I realize in your area there's growth, and the other ones here, the O'Hare and the Boston facilities, those are pretty busy areas and considerable growth, but there are parts of the country where there isn't much growth. I wonder if it would be any different, if the answer would be any different there.

Mr. **Moore**. I believe the answer would be different.

Mr. **Anderson**. It would be different, okay.

Mr. Connor, did you——

Mr. **Connor**. As a matter of fact, things that drive this pressure is the hub and spoking in the airlines. American Airlines goes to Raleigh-Durham, North Carolina, and changes a relatively modest operation into a very large operation overnight. They are still working on getting a handle on it.

They are doing it. They are having to flow the traffic, and I think the FAA in their traffic management system has protected the controllers at Raleigh-Durham. They received quite a shock when all these airplanes turned up. They were not prepared nor did they have any advance training or warning to accept the number of aircraft. Whether they go into hold or hold them on delay on the ground, you have to prepare for those things.

Again, what drives these things is the airlines' scheduling, 18 of them leave the gate at 00 past the hour. They're not all going to get off at the same time, but yet there's an indirect or direct pressure to try and do that.

I think the supervisors and the controllers and the traffic management unit have to come together and regulate the flow of aircraft.

Mr. **Anderson**. I guess this is a continuation of the same question. What do you think would be the impact of adding, say, 20 percent to the traffic that you are handling now at current staffing levels?

Mr. **Bellino**. Mr. Anderson, in fiscal year '86, the air taxi count at O'Hare was 49,507. Two years later, fiscal year '88, it went from 49,507 to 129,981.

In 1986 we had 32 FPLs. Today we have 35 FPLs. The FAA numbers are 37. However, we dispute that. We went from 32 FPL Controllers to 35 FPLs. We went up well over 200 percent in air traffic activity. So, if you're going to go over 200 percent in traffic and have an increase in the controller work force of only 68 percent, you're going to have a problem.

Increasing it 20 percent may work, but you have to increase everything proportionately.

Mr. **Connor**. I might add, Mr. Chairman, there are places that could not experience a 20 percent increase. They are at or near capacity, 20 percent is out of the realm.

Mr. **Anderson**. Out of the realm, what do you mean?

Mr. **Connor**. They couldn't accept it. There's not enough runway, not enough airport to handle a 20 percent increase at various airports throughout the United States. I think the FAA has recognized that. Chicago O'Hare being one. How many airports can you put in there? They are going into these wayports to relieve these hubs and spokes.

There are just certain places you cannot put more airplanes into.

Mr. **Anderson**. Mr. Molinari.

Mr. **Molinari**. Earlier today we talked about indicators of safety and the fact that there perhaps should be a hiring of flight safety foundation or other outside consultants to come up with some better indicators of safety than we have dealt with in the past.

One of those that's mentioned frequently is the operational error question. Now in the FAA Northeast Corridor report regarding New York, cite specific issues, some New York TRACON controllers said the operational error problem may be worse than the numbers that are shown. The NATCA safety representative agreed that it is possible controllers may not be reporting all errors.

Now we hear this quite a bit. As a matter of fact, we have gotten some information, my office, in the past week about the non-reporting of some operational errors. I know it goes on. I would like you gentlemen to give us your own perspective on this issue and whether, in fact, operational errors are going unreported and to what extent they are unreported, if you can.

Mr. **Bell**. If I could start out, Mr. Molinari. It is a sensitive issue but the real problem that we have is with respect to reporting of operational errors. As you know, we have talked on many occasions about the lack of a good reporting mechanism for Air Traffic Controllers.

Last November the FAA put forth an order that provided for full reporting immunity with respect to reporting of operational errors. What we found in our 25 facility tour was that the Controller work force did not know about that order. They had not been briefed on it, and in some cases, which is the case of Boston Center I know for sure, the order wasn't even in the facility, so you have a situation where there's a viable means and a protection for a Controller to report operational errors, but they have not been briefed on it.

I think that underscores a real problem with the issue of reporting. I don't think the FAA wants Controllers to report all of the problems that are in the system and all of the mistakes that are made during their tour of duty.

Mr. **Molinari**. Let me stop you there. Why do you say that? Why do you say you don't think the FAA wants them reported?

Mr. **Bell**. Because they don't promote the reporting of the errors or the situations by briefing their Controllers on the system that's already there to use. If you want to encourage an employee work group to participate in a program that's going to help build the system, then it only stands to reason that you would educate them on it, encourage the use of it, and then further make sure that information is provided for them in the facilities.

We found out on numbers of occasions that it's not there. We have taken it a step further by even informing FAA that we are going to tell our people how this program works. We are going to encourage the use of it because it is totally necessary to use it so we can get an indicator of the problems in the system.

You said that the gentleman in New York said it's a possibility that all errors aren't reported. "Possibility" was the wrong word to use. They aren't. I have stated on more than one occasion that probably for every error that's reported, there are three or four more out there that are not. That's based on my experience from the people that I talk to frequently and when I worked in the New York TRACON.

Mr. **Molinari**. Anybody else at the table wish to comment on that issue? Mr. Dollard.

Mr. **Dollard**. Congressman Molinari, I am from New York Center. Our view of that is, at least in our building, some errors are all reported by us, and we are very careful about that, but you have to understand there's a big difference between the terminal environment and the center environment. In the center environment you have the so called snitch program where the computer detects the loss of separation and records it.

Mr. **Molinari**. Always?

Mr. **Dollard**. Well, it's possible it could miss one.

Mr. **Molinari**. Can it be suppressed? I have been told by controllers that you can suppress that.

Mr. **Dollard**. The suppressor at the control would have to put a message in. That message would be detected. That is a very stiff offense for somebody to do.

Now if you go to the terminal option there is no device really to measure system errors, so you might have a difference in reporting there. You have this automatic computer based reporting system in the center environment. You don't have it in the terminal environment.

The only thing I can talk for is the New York Center. As I say, we are very careful about that.

Mr. **Molinari**. Anybody else?

Mr. Connor?

Go ahead, Mr. Aurandt.

Mr. **Aurandt**. Speaking for the Boston Center, I can echo the comments of the gentleman on the far right. In the en route environment, you have computer automated equipment which detects the errors. The Boston Center is very, very stringent on inspection of those errors. Sometimes it can lead to equipment error. For example, if there is a margin of error in the radar display it will be detected. They do come after and investigate the error and observe and see whether there was an actual operational error.

Mr. **Molinari**. You are confident that your center, at Boston Center, that errors are being reported?

Mr. **Aurandt**. Yes, I feel the errors are being reported.

Mr. **Bellino**. At Chicago O'Hare, I am confident that errors are being reported. There has been such a problem there over the last number of years that I believe the pendulum has swung a little too far the other way and they are zealousy researching them. I use that term as my own opinion, "zealously researching them," because the pendulum has swung from non-reporting to reporting a little bit too much. The pendulum always does swing, and eventually it will get back to where it should be.

I think the problem of non-reportive operational errors or system deviations comes from smaller facilities, and those smaller facilities where the chief manager or supervisor of facility did not want to rock the boat or the supervisors do not want to rock the boat.

A place like Chicago O'Hare is in such a limelight and under such a microscope, as well it should be, that we are definitely reporting every situation and possibly some that shouldn't be reported.

Mr. **Molinari**. I don't want to start a fist-fight at the table, but I can recall from some of my travels that some of the controllers in facilities would suggest that when an operational error is committed by a supervisor who is working the boards that oftentimes those errors don't find themselves in the statistical data base.

Go ahead, Mr. Connor.

Mr. **Connor**. I would like to answer that. They are treated the same as controllers. There is no difference, when they are in that position, they are an air traffic controller. They should not be performing any supervisory duties. They carry the same responsibilities as the air traffic controller.

I have not seen or heard of any supervisors receiving an exemption or a wink, if you will, when a systems error occurred. It prints out. You have other parties involved, there are other people in the room. It would be stupid and difficult to try and suppress that information.

Mr. **Bellino**. I don't believe it is either stupid or difficult. It may be stupid, but it is definitely not difficult.

I can name a number of facilities where the operational error was investigated by the quality assurance officer, who turned out to be the supervisor who had the error, and he was completely vindicated.

Mr. **Molinari**. That is the kind of thing I have been hearing over the years, Mr. Connor, and Mr. Bellino has apparently given some corroboration to that.

Mr. **Connor**. The supervisors I come into contact with through the Federal Managers Association, we do not find that nor do we have any difficulty being held accountable for what we do as air traffic controllers. That may be an isolated case, what is being reported in Chicago, I hope it is, and I think it is.

We are the same when we sit down on that radar scope or in the tower as an air traffic controller. We seek no exemption.

Mr. **Molinari**. Anybody else? I will tell you this. We will be looking at that situation, and we welcome controllers giving us information along those lines. If there is information like that, we will have staff do some monitoring and checking to verify because obviously that shouldn't occur.

I think we all agree on that. Why, in your opinion, do we have different perspectives expressed by management than controllers and why are they so consistently disagreeing and vary on some of the subjects we have talked about here, morale and working conditions and equipment.

Anybody can offer an opinion on that.

Mr. **Bell**. I will jump in on that one. I would agree with Mr. Connor that communications is a preeminent problem we have out there. NATCA has embraced a relationship with the FAA from the outset by saying if we can improve communications and we can sit down and open up the doors here and work together, we can stay away from the confrontational past of PATCO.

We want to do that. That is the mandate of our people. We have made some progress at the national level. However, when you move down the structure to the regional level and most importantly the local level, you will find that NATCA, its people and controllers in general are often stereotypically viewed as just PATCO II. There is also a "wait and see attitude" or "I am not going to negotiate or talk to people here unless I get the green light from headquarters." Therefore, you have a narrow-minded view on the part of management, in my opinion, and stereotypes still exist.

I suppose we are always going to carry some of that baggage because of the disaster of 1981, but we have to and FAA has to say, "Well, come on, let's do this because we have proved that it can work."

We just sat down and negotiated a national contract and I don't ever remember raising our voice with FAA. We put together a good agreement, and we are going to live by it, but when you get out of

FAA headquarters and go out to the regions, as in the case of Mr. Bellino, who is the Great Lakes representative, you have a terrible time dealing with the people.

They don't even want to talk to Joe in many cases. In the southern region, grievances are just blatantly denied, denied, denied. They wouldn't even talk to you. We have other regions that have the same kind of problems.

That was the first thing I asked Mr. McArtor to look at when I came to this town last August. I said we have got some great shining examples of how communication can work and how we can work together in solving some of these problems, but we also have some real bad problems out there, so let's concentrate on those areas.

We don't seem to be getting a whole lot of support in that area.

Mr. **Molinari**. Yesterday I had a nice meeting with Mr. Whittington who is here today and will be testifying later on, and it was pleasant for me to hear him talk about the relationship with NATCA.

He spoke in very positive terms about the new union and their attitudes and the cooperation. I thought perhaps that we might be seeing something new and that the union offers real promise in breaking that barrier that exists between top management and people on the bottom.

Now that has been one of the most consistent complaints I have heard around the country. People in the trenches, as I call them, the men and women who are working the boards, they are the ones I think best capable of telling us what is wrong with the system and more importantly, how you can fix it. And the professionalism of that work force suggests to me that they are very frustrated when they make recommendations of change that can improve the efficiency and the safety of the system.

There is nobody up there that is living. You go through facility advisory boards. Some places they work, some places they don't. What is your impression today as to, I assume now since there is a union that they are going to you people and saying, look, we have got problems here, we want you to take these problems up with management, has anything changed, and if it has, to what degree?

Mr. **Bellino**. In seven months of dealing with the Great Lakes regional office, I have been able to resolve two issues significant to controllers, but insignificant on a grade scale—two issues in seven months by calling up the region and asking them, "Please look into this."

Now, each situation that has arisen involves a number of phone calls, a number of weeks of work and contact. In seven months, only two issues were resolved verbally without resorting to writing. Most grievances, I can say 98 percent and I would probably be low, that come from the facility level and goes to the regional level are automatically denied.

I have requested the ability to discuss these grievances with the regional office, possibly negotiating something between the two of us once it is out of the facility and once personalities are eliminated, to come to some kind of common ground.

I have never once been given that opportunity to negotiate a grievance, and when I received written response on that grievance, it was denied. I called them up and I said, "We reached an agreement on this. I don't want to get into personal views." I am the only regional representative out there. I can't reach any agreement with them. I can't talk to them.

They are not willing to negotiate. They think I am PATCO. This is one of the biggest problems in the trenches. Many times people call me up and they don't even want to talk to me. They think I am too radical. They don't want management to know they have talked to me.

The GAO survey shows it better than anything I could ever say. We have a moral problem. That moral problem affects air traffic safety. If you have a Controller who is thinking about the way management stepped on him, he is not going to be concentrating on the traffic or he is not going to devote 100 percent of his time to what he should be thinking about—that is air traffic and air traffic only.

NATCA National has a wonderful relationship with FAA National. Now, what we need is something to filter down into the trenches, because it is certainly not getting there.

Mr. BELL. If I could add to that, Mr. Molinari?

Mr. MOLINARI. Sure.

Mr. BELL. We have some quality people in FAA headquarters, and some of them are sitting behind me. We appreciate their efforts in working with us, and I remain optimistic that we are going to be able to make strides and turn this boat around.

My concern is information filtering down from here, and that is the problem. My concern is when you get a facility manager who refuses, who blatantly refuses to negotiate and act accordingly with the direction from his own headquarters office. What do you do there?

There is only one answer, in my mind, and it is called discipline. The FAA, in my opinion, has a very poor track record of disciplining its own people. And a bureaucracy or an association like the FAA, which cannot influence its leaders by proper discipline is going to fail, and that is a problem.

Mr. MOLINARI. Wait a second. What you are telling us now, if I understand you correctly, is you are getting good cooperation from Headquarters Washington, that your negotiations and discussions with them on the work problems, work-related problems, you are getting a sympathetic ear, and more so, an intent to cooperate, but that when it reaches into headquarters, you are not getting that degree of cooperation that has been promised to you by headquarters?

Mr. BELL. Exactly. And that runs the gamut from safety-related issues, which we don't negotiate on, to negotiable issues.

Mr. MOLINARI. Now, don't you go back then to Mr. Whittington and some of his people and say, hey, wait a second, it is not working, and call upon them to be accountable to uphold the promises they made to you?

Mr. BELL. That is what we are here for. To be honest about it, we are a young organization, and I had been at the table for five or seven months. We had new people in the FAA, and there has been limited availability to get back in those instances. This is not just something that has been happening for the last six, eight, 10 months. It has been going on for a long, long time.

When I was NATCA regional rep in the Eastern Region, I spoke to the Regional Division Manager about the very same thing. In that particular instance, I saw a commitment to pulling the reins in on managers when they had to do it. We are not out there to try to embarrass the FAA or any individual manager, but clearly, when you have a problem where people just won't comply or just won't commit or won't shed those stereotypical views and that narrow-mindedness, then you have to do something.

What does the FAA do? "Let's take them out of this facility and put them over here." Then you just remove the problem to another area. It is the old band-aid approach, and that is a problem, too.

Mr. MOLINARI. Okay, Mr. Connor wants to speak, but before he does, I want you to know this: If you have memorandums like you talked about before, that are supposed to be sent out to controllers across the board, and a good percentage of the controllers are not receiving a memorandum suggesting that if they report operational errors, they are exempt from any disciplinary action, please call this subcommittee, either ours or preferably staff, so you can get this information. We will find out why it isn't being done.

I assure you that will be corrected. Mr. Connor, please?

Mr. CONNOR. Yes, sir. In reference to the new NATCA contract, there is a lot of uncertainty among supervisors and managers about how the contract is supposed to be dealt with at the communications level. We need to emphasize the training for the first-level supervisor.

That sets the standard for the facility what the relationship with NATCA will be. They have the day-to-day contact with the NATCA representative, the crew rep with the people on the floor. We must train these people.

Presently, the Eastern Region, we are going to receive two days of training. I think we should go into that a lot more. I think we should take some of the people who have lived through the '78 and the '80s and develop a course for the newer supervisors and managers, give them history on why we ended up on the condition we did in 1981, and pass that information on, and if we continue to talk to each other, whether we may disagree at times or not, I think that is the key to the whole issue, sir.

Mr. MOLINARI. All right. I just have one other question. I know we are trying to proceed. We have an hour we want to terminate by, but one question that is quite important, it was touched on earlier today, and that is the on-the-job instruction, on-the-job training.

There has been more than a suggestion that many of those controllers who are barely qualified as FPLs are pressed into service and then are training developmentals. Therefore, what we find happening throughout the system is people who are not very well qualified as opposed to those who conducted their training in the past are now being called upon to instruct people who have just a little less talent, I guess, than they themselves.

How bad a problem is that? Is it a real problem? Is it systemic? We have enough people here from around the country to give us an idea of the seriousness of that question.

Mr. Connor.

Mr. **Connor.** I believe the experience level in actually going through a situation is one of the more paramount concerns we have as first-level supervisors when we qualify somebody on a position. Do you wait for a series of thunderstorms to come through to let the developmental experience that situation?

I believe simulation to a large degree can raise the controller or the developmental's confidence level. They will have seen the situation, we will have been through it rather than just sit down and explain it to them.

I would like to see the increased use of simulation, real-time simulation, not just half of what we can do on the actual radar scope, the whole situation come through, the weather, the emergencies, the holding patterns. We can do that, the technology is there.

Also, to assist the new people through this transition, I suggest that we hire some of the retired folks who have this experience. They can sit as an assistant controller or assistant whatever to the person on the position, and when that situation arises, they can help the people through their program.

Mr. **Molinari.** Thank you.

Mr. Bell.

Mr. **Bell.** Yes, sir. I think you touched on a very good point with respect to the experienced FPL being the OJT instructor. We have found, and this is very distressing to a lot of people, that FAA has a penchant for filling those staff jobs with quality people, and then they are removed from the floor to fill management support staff positions.

We have classic examples in a lot of facilities, such as the New York TRACON, of too many chiefs and not enough Indians. For them to continually deplete that experience from the floor to provide hands-on experience for OJT is debilitating to the process.

Furthermore, the whole issue of OJT has become exacerbated because of morale, obviously, and the extended periods of overtime usage. Obviously we all know that providing OJT just makes the environment that much tougher to deal with.

I can remember on occasion, when I would walk in to work at the New York TRACON in a very busy sector. It is Thursday afternoon and there is a push on at Newark. I get assigned to a position, and I am asked to train. I always enjoyed OJT training, so I said sure, but when I plugged into position, I looked down and all of the other eight positions are filled with developmental training Controllers, and here we are at the busiest time of the day, in the most complex environment training on every position.

My comment to the supervisor was, "This is not a real safe situation here. We have got a potential for a problem." He might have agreed with me, but the rush to get these people checked out is so bad in some places that we inappropriately push too hard and too soon. We don't provide a very good quality figure for what we have got to give these people to get them checked out.

Mr. **Molinari.** Mr. Bell, I must say, you have just rung the bell. You are looking at somebody who flies into Newark Thursday afternoons.

Mr. **Bell.** I know that.

Mr. **Molinari**. When you say that people have suggested it is not safe at that time, I am seriously considering staying over until Friday morning. We may joke a little bit, but it is a deadly serious question, and I appreciate your comments.

One last question that I will ask you, and we are going to move on to the next panel, I think. Look, this is your chance, each and every one of you there, you have a recommendation that you want to make to us or a gripe of something that you consider is very serious, this is your opportunity to put into the record and to help us to help you to create a better system, so I throw that out to you, and say take advantage of it, if you will.

Mr. **Bellino**. I will make it real brief. I ask the committee to look at another GAO report dated March 1989, RCED 8983. It shows the problem with the training that we have. I am sure the FAA will say that now, under the new OJT training order, an FPL is required to be an FPL for six months prior to allowing him to train. That is nice, and the OJT training order looks as if it is good, but I think most of my fellow controllers will agree that it is a terrible program. It is a terrible program, no less terrible than the SIDP, Supervisory Identification Development Program, that controllers think is terrible.

The last thing is the contract training. Contract training is nothing more than a run on the Treasury. It is absolute farce, and I have been trying to get everybody to look at this. It is also addressed in this GAO report on a small scale. It is a very—it is a bad contract.

Mr. **Molinari**. Anybody else?

Mr. Dollard.

Mr. **Dollard**. Mr. Molinari, in our view or at least in my view, and a lot of my counterparts in New York Center, it is obvious to us for many, many years now that there is something wrong with the internal system of promoting management.

The FAA now is in the process of developing a new pay system that will be submitted to Congress in the near future. The intent of that will be to put the competition back in for people in the control ranks, supervisory ranks and so on, to move up in this agency.

I guess it is the phrase, the best and the brightest. We would love to see that happen. I think the FAA, a lot of our problems will start coming around when we get that competition back in there.

Besides, it is going to be a fair system. I think it is badly, badly needed. I would hope the Congress could look at it very closely, and do the very best for us.

Mr. **Molinari**. Mr. Houde, you haven't said a word. I am not going to let you get away with that. You are from Washington Center, and you have got real problems there, so you are going to have to take a crack at it.

Mr. **Houde**. Yes, sir. I am sort of in agreement with Mr. Bellino as far as the new training. It really takes the quality out of the training process itself. Instead of taking the workload off the controller, it puts the workload on the controller and also the first-line supervisor.

I think—of course, we need to improve the staffing levels, the FPL levels, and improve the equipment, but right now, we have to have a higher standard of training. We have a high standard for the controller here where he cannot make an error, but we have over the years lowered the standards for the training process, and that is beginning at the entry level and the academy and all through the training process itself.

Mr. **MOLINARI**. Mr. Connor.

Mr. **CONNOR**. Just to pick up on that, one of the problems that we see in attracting quality people, number one, coming to government; number two, the work rules within government; number three, the image of a government worker is not that great, plus the pay.

One thing that I would ask for your support, and I have been up here for, this is my fifth week in a row to come up here, pay demonstration, the FAA developed it, sir, and I urge your support. Let's try, let's see.

They have come to you with a genuinely good idea. We need the funding for that program. Thank you.

Mr. **MOORE**. I believe that one of the major problems is the short staffing. Just as an example, at the Coast approach, we are authorized 65 FPLs, and we have 23 FPLs. 1985, we had 22, and we presently have 23. The projected air traffic activity is going to increase dramatically at Coast. Over the past 12 months, it was 530,000, as far as the number of aircraft worked, and the projected traffic count for July of 1990 as 1,043,000. That affects morale tremendously.

Mr. **MOLINARI**. Absolutely. Sure. Mr. Aurandt.

Mr. **AURANDT**. I bring up one issue relative to the overtime issue. While I, and I am sure everybody else on the panel, appreciates the efforts to reduce fiscal expenditures as much as possible, but at times I think that the need is heightened in certain arenas.

I believe Mr. Whittington may mention something about that later on, but there has been a great tremendous effort to reduce the amount of overtime.

However, I do not feel that the need has been adequately relieved. For example, on issues of training, we have a large number of trainees in comparison to FPL Controllers, and that increases the amount of workload upon each of the FPLs.

I really feel that the need for the overtime should be addressed, and I feel that money should be made available, and that while it needs to be done in a prudent manner, perhaps, it also needs to be looked at in a realistic view.

Mr. **MOLINARI**. Thank you, Mr. Chairman.

Mr. **ANDERSON**. Thank you, Mr. Molinari.

Mr. Bellino, Mr. Moore, and Mr. Aurandt, would you each describe the working conditions in your facilities?

Mr. **BELLINO**. At the Chicago O'Hare TRACON, the working conditions are such that we have too few people working far too many airplanes in too little air space. Our major problem, which would be borne out by a review the operational errors that have occurred, is that the majority of operational errors have occurred on the satellites.

Midway Airport and Miegs Airport have probably come close to tripling in traffic, and all of the Midway traffic and all of the Miegs traffic and the other satellites come in beneath Chicago O'Hare's traffic.

Chicago O'Hare itself is very busy. We work also 28 airports, including Chicago O'Hare, which Midway is one of them. It is the 16th busiest in the country. Midway is, located eight miles south of O'Hare, and the working conditions are such that there is no room to put airplanes.

When we are landing on 13 right at Midway, that means you take aircraft landing at Midway up to within five miles of O'Hare and turn them in on the final to land at Midway. That means that if you make a mistake, if you forget that one airplane for a very brief period of time, he will be flying right over the top of O'Hare.

Aircraft are naturally three to four miles apart in a long string inbound going into Midway.

Chicago O'Hare TRACON works Midway, and the condition there is too many airplanes, too few people, not enough air space. It is real simple.

Mr. Anderson. Mr. Moore.

Mr. Moore. Yes, sir. The working conditions at Coast are poor, and I would go as far as saying very poor. The actual—physical working conditions are poor; the radar room is 345 square feet with 16 positions, and with a new air space alignment, the FAA is expanding the room to 415 square feet which will have 22 positions at that time.

On a 1989 survey feedback action, 87 percent of the Coast approach controllers said environmental conditions were unfavorable, and 71 percent of the people deemed unfavorable the resources available to get the job done better.

Mr. Anderson. Mr. Aurandt.

Mr. Aurandt. Presently at the Boston Center, we are experiencing predominantly a shortage of FPL Controllers. There may be a large number on board. Utilizing the agency numbers, because ours don't vary that much by theirs, there are 292, Controllers.

However, 161 are as FPL Controllers. The remainder are either dispersed in staff positions or are developmental Controllers. Again, that places an extreme workload upon FPLs and the training regime. If the FPL level would be higher, things would be much better.

It also goes back to where a lot of the problems at our facility stem from. The system safety and efficiency review which was performed at the Boston Center, and other facilities, indicates that low morale, which I believe are affected by the communication gap, is of great concern.

Very many of the issues that are brought up in the review have been paralleled in the GAO study. I read the first one, then I read the second one, and it was just a graphic demonstration of the safety and efficiency view.

Mr. Anderson. Mr. Connor, in your May 9, 1989 statement before the Subcommittee on Aviation, on the effectiveness of the FAA's organizational and management structure, you mention growing employee mistrust, and specifically, you said, "We believe that non-responsive Federal Aviation employment policies and practices are leading to a growing body of FAA employee mistrust, and if left unchecked will cause work slowdowns and other disruptions."

Would you elaborate on why you have this belief?

Mr. **Connor**. I also might add the comment that Mr. McArtor, before he left the FAA, had the same viewpoint, sir. He expressed that to us in a meeting we had with him two years ago this June. He saw the conditions there. They in part are driven by the frustrations of government regulations.

They are in part driven by the frustrations of government pay. They are in part driven by the anticipation of the NATCA contract resolving most of the issues. You look at the NATCA contract, realistically 80 percent of the contract is government regulation.

What makes the contract work will be the other 20 percent, the communications between the parties about what the rules and regulations say and what we can do as a government organization.

Also, what drives the budget. For a number of years, the airways facilities technician work force has declined. One of those gentlemen called me on the phone the other night about that remark, and he said one of the things we are frustrated with is we are being held down on ceiling support, the increase in air traffic controllers.

There is just so much money in the pot. I think we need to take a look at the FAA as a total body. We ought to consider independent status for the FAA. We are one of the principal people that have talked to Congressman Oberstar about his bill.

We support the effort for an independent FAA. We support the effort to take the FAA's budget offline and secure a continued source of revenue. I think these plus the communication and going back to working with the NATCA folks will resolve most of those problems.

If they don't work, we will have controller slowdowns.

Mr. **Anderson**. Are you suggesting that FAA is getting to the point where it was just prior to the 1981 PATCO strike?

Mr. **Connor**. No, sir. I see the conditions there. I was through that program, I was through the programs in the early seventies. I see the same frustrations, I see the same dialogue or lack of dialogue between different groups, NATCA, managers, supervisors, I see the uncertainty there.

What I am saying is if we don't work on those issues now and in the future, we will have problems within the next two years.

Mr. **Anderson**. Do you have an opinion as to how willing and able supervisors would be to pick up the slack if the controllers slow down?

Mr. **Connor**. I can speak for this supervisor. I went through 1981. I do not have that in me anymore. I am approaching my 50th birthday. I am actively considering withdrawing from being a first-level supervisor, because my skills are diminishing.

This is a provision that requires young individuals. We can't lose sight of that. I would like to stick around in some capacity to help the next generation along. The other supervisors, you look at the members of the Federal Aviation Conference, most of us have slightly gray temples, we are a little bit older than the work force.

I don't think they have it in them, sir.

Mr. **Anderson**. I will direct my questions, a number of them, to you, Mr. Connor, but if anyone else wants to chime in, go ahead. On staffing, are FAA air traffic control facilities staffed with a work force that constitutes the optimum number of positions and the proper mix of developmentals and FPLs to effectively discharge training responsibility in air traffic control operations?

Mr. **Dollard**. Mr. Chairman, we have trouble addressing it on a system-wide basis, at least I do. I can tell you from the New York Center's point of view, no. We have kind of a situation where, one, we are chronically understaffed in the FPL level. Since the strike in 1981, the best I think we have been able to do is about 64 percent actually staffed.

We have situations for the trainees where, instead of a steady stream of trainees coming into the building, say every month or every quarter, they stop the trainees coming in New York Center for 21 months, we got—we did not receive one new trainee in the building, and to this day, we don't know why.

So, the FAA has not been able to, for whatever reason, to keep a steady stream of qualified trainees coming into the building so we can get the numbers up to where they belong, to take care of attrition, have sufficient numbers on the radar positions to handle the traffic, and that has been chronic since 1981 and even before that.

Mr. **Bellino**. The FAA developed in 1981 or 1982 the En Route Staffing Standard Program. That En Route Staffing Standard Program is based on objective criteria in which it is more like a time study. A computer will determine from the formulas and tapes of each center, and the center has the capability of producing this tape from the computer and the traffic count, how many people should be assigned to each sector and to each center.

They have that ability. I think the FAA has fallen away from using it over the last few years or so. The FAA is now, and I certainly applaud it, working on a terminal staffing team which will objectively determine the number of FPLs that are required for each facility.

Moving away from the subjective determination of how many people we need is what we have to do. We have that capability, and it is already there. We have already spent the money on it. Now, it is a matter of using what we have.

Mr. **Anderson**. This is again to any one of you. Can you provide examples of facilities where controller work force numbers are less than adequate to provide for a proper level of safety in controlling traffic or where the shortages create other problems in areas of training, use of leave and/or excessive overtime?

Mr. **Bellino**. Well, at Chicago O'Hare, we have 35 FPLs; we are authorized 79 FPLs in the TRACON. In the tower, we are authorized 46 FPLs. We have 29. That is the major problem. Everybody looks at a place like Chicago O'Hare, but I would like you to look at another facility like Decatur, where a Controller is assigned to work eight hours straight without relief.

I am not talking a midnight shift. I am talking about a weekend, when it is a level one tower with heavy VFR traffic. If he has to go to the bathroom, there is no way to do it. I am an hourly got-to-go-to-the-bathroom kind of guy. I am sure there are others who might not be able to make it eight hours.

I find that has a definite effect on morale. That was one of the two things that I was able to have my region help me on, and hopefully they are changing it now.

Mr. **Anderson**. How effective has the FAA's recruiting effort been in hiring and training developmental controllers, anyone?

Mr. **Connor**. As far as the recruitment program, we seem to be missing the population that we want to reach and attract into the FAA. For what reason, I don't know. There are several initiatives being developed by FAA, and I suppose Mr. Whittington will address those in a few minutes.

We need to identify, whether it be geographic, the people in the Chicago area go to work at Chicago O'Hare, the people in Norfolk work at that particular airport, we need to study that. We need to study further what will predict a successful air traffic candidate.

We have extreme difficulty identifying those people. We have just gone through an experience with the military controllers, and as far as I can tell, in some places it was very good and other places it was not good. We didn't identify the premier candidates that we wanted for the job.

Mr. **Anderson**. You almost answered my next question here. What has been the success of the FAA's efforts in hiring and training former military controllers to attempt to address the staffing shortage?

Mr. **Connor**. My experience with that, and I can address it from Norfolk, Virginia, is that when they came in, they were overwhelmed. They were not aware of the sophistication and the level and the volume that we use in the FAA system. They understood the basic regulations, they could operate in the basic system, but we had to go almost back to square one to get them up to a level where we found them to be acceptable as developmental controllers.

We have lost two already as training failures. We will probably lose another one this week, and there is a possibility that there will be a fourth within the next several weeks, and that is just in the control tower. They have not reached the radar environment yet.

Mr. **Bell**. If I could add to that, Mr. Chairman, the military hiree issue also contributes to the decline in morale in the work force. When you bring military controllers who have not served any time in the FAA and have no tenure and then put them into a Norfolk, Virginia, you have just denied the upper mobility to Controllers at lower ranking facilities.

Norfolk is a level four facility. Now, level one, two, three Controllers don't have a vacancy that they should get, because they put time in at other facilities, and their career progression is stifled. The same thing happens when you bring an air traffic controller from the Oklahoma City Academy and stick them in the busiest, most complex environments in the world, such as Chicago O'Hare, the New York TRACON, Los Angeles and others. We have always said that we think that is an inappropriate thing to do.

We need to have a circuit system where Controllers start at a lower level activity, graduate up to the top. They then go through those periods where they start to decline and as Mr. Connor mentioned they should then be able to graduate back down and be able to reach a 20 or a 25-year retirement.

We are very concerned that our work force will ever make a 20 or 25-year retirement at this present pace.

Mr. Anderson. Mr. Bell, this will be my last one, it may be you, or Mr. Connor might chime in if he wants. What happens at facilities that experience FPL shortages as well as overtime limitations, and how are the contingencies, such as bad weather or equipment breakdowns dealt with when facilities are already operating at bare minimum on-board staffing levels?

Mr. Bell. Well, I will give you some example when I worked in the New York TRACON. When that situation did occur, then obviously we had to slow the airplanes down. You have to stop the airplanes. On a worst-case scenario, because Mother Nature is so unpredictable, you could be stuck with a lot of airplanes in a small section of air space. Then all of a sudden, a thunderstorm is there. That is what controllers get paid to do.

They operate as a redundancy. It is a broad-spectrum problem because it depends on the circumstances. There could be a situation where there would be more of an error-prone situation because of a lack of an ability to relieve somebody that has already been working under an undesirable situation.

Maybe Mr. Bellino or one of the other gentlemen could comment on that scenario in their facility at present.

Mr. Bellino. Mr. Larry Holcomb, who is an Area Manager, has stated to his people a number of times at Chicago O'Hare that he can justify delays. He is one of the guys we don't have a problem with. If you tell him, I am going into hold, they go into hold.

My God, that is what it should be, and what he said is, "I can justify delays, I cannot justify an operational error or worse." And we support that 100 percent. We support that type of attitude.

When it comes down to weather, one of the biggest problems I see is developmentals who are checked out in November or after the thunderstorm season and work as FPLs for six months but are unprepared for thunderstorms.

Now, in thunderstorm season, airplanes do not turn, they refuse to go through cells. Well, Controllers don't want to put them through another aircraft, either. Back in the old days, when I came on from the military to O'Hare, there were a lot of "old-timers," who knew the tricks of the trade on how to work in that situation. We don't have that much old-time experience for weather.

Weather-related activity in air traffic is probably the most extreme and intense that a Controller can get. You will tell a pilot to turn. He won't turn, he won't climb. His aircraft will not make it through that cell, and there has been times when I said, "well, you may not be able to make it through that cell, but I guarantee you are not going to be able to make it through that holding pattern."

Now, I know that is wrong. What I am saying is, that it is the most intense situation for a Controller. The level of experience is certainly a tough one. I do not have an answer for that.

Mr. Connor. I would just like to comment. On the slowing of traffic down, that is the first thing that we do is regulate the traffic, one of the things first-level supervisor is supposed to do is recognize when the overload is going to come and prevent it. We can justify the delays, and I would just like to pass along the comment of the Eastern Region Air Traffic Division Manager, Mr. Dave Knolls, to the managers a couple weeks ago, "Tell your people if they can't work it safely, don't accept the airplane."

Mr. **Anderson**. Mr. Duncan, did you have any questions?

Mr. **Duncan**. No, Mr. Chairman.

Mr. **Anderson**. I think that completes panel number two. I want to thank everyone. I thought it was an excellent panel.

[The prepared statements of Mr. Bell and Mr. Connor follow:]

TESTIMONY OF
R. STEVE BELL,
PRESIDENT OF
THE NATIONAL AIR TRAFFIC CONTROLLERS ASSOCIATION, AFL-CIO
BEFORE
THE HOUSE PUBLIC WORKS & TRANSPORTATION
SUBCOMMITTEE ON INVESTIGATIONS & OVERSIGHT
ON
AIR TRAFFIC CONTROLLER WORKING CONDITIONS
MAY 25, 1989

My name is Steve Bell and I am President of the National Air Traffic Controllers Association (NATCA). Accompanying me are Joseph M. Bellino, NATCA Great Lakes Region Representative and an FPL Controller at O'Hare TRACON, Randy Moore an FPL Controller at Coast TRACON and Kevin Aurandt an FPL Controller at Boston Enroute Center. Until August last year, I was an FPL at the New York TRACON.

NATCA welcomes this opportunity to comment on the GAO's report, which in our opinion provides an excellent snapshot of current Controller working conditions. Although NATCA has not had the opportunity to poll its membership in such a detailed and scientific manner, we find that the report bears out many of our worst suspicions and fears. Although some beneficial changes have been made at the national level, very little has been accomplished at the regional or local level. The manager is still master of his realm and as a Controller, you hope that you get a lucky draw.

Earlier this year I spent five weeks travelling across the country meeting Controllers at as many Centers and Terminals as possible. I knew conditions in the field were bad, especially at the local level, but I did not realize they were that bad.

From these discussions, from the hundreds of telephone calls and letters I have received and from the scores of Unfair Labor Practices and Grievances we have filed, I can say that the FAA has a tired and demoralized work force that is fed up with the empty promises that have been served up for the past eight years.

Moreover, the work force has become cynical about change. Administrators come and go, new initiatives are announced that are no more than window dressing and it all boils down to business as usual. And it is a very poor way of doing business.

It would not surprise me in the least if the FAA dismisses the finding of this report. After all, they have their own job satisfaction survey which in our opinion measures only whether you like the profession of Air Traffic Controller. And the answer for the most part is, "Yes." I like being an Air Traffic Controller but the Agency never asked me the type of questions the GAO did. That is because the FAA does not put itself in the position where it could come under harsh criticism; its questions predetermine the results. The agency's questionnaire is the survey equivalent of a smile chart. It may good for public relations but it is highly unscientific and never plumbs the depth of the problems that continually plague the work force.

Before, we discuss the GAO report in detail, I would like to make one more general observation about its findings. In reading the report and looking at the bar graphs, I was struck by the enormous disparity between the perceptions of managers and Controllers, and in many cases, managers and supervisors as well.

Managers are seemingly oblivious to the internal discord that wrack the ATC work force. It is as if FAA managers were absentee landlords who had no idea what their tenants were complaining about. And as with an absentee landlord, we will probably get little relief. They tend to view anyone who criticizes them as a trouble maker, or as we have been unfairly labeled, "chronic complainers."

The first three areas that the GAO addresses are closely related: staffing, time on position and overtime. The FAA claims that the work force has been rebuilt to pre-strike levels. I cannot find anyone else who believes this; the Controllers working air traffic most certainly do not.

Last fall, NATCA obtained through a labor relations agreement with the FAA, a list showing staffing levels at some sixty ATC facilities which we believed were short staffed. The document showed that the number of FPL Controllers actually working at the facilities was far less than the number authorized by the FAA. I would not be surprised if this shortage of qualified personnel was even more common, and we hope that the Subcommittee will keep a close eye on the imbalance.

We know all too well how the FAA plays fast and loose with semantics and staffing numbers. The Navy says, "If it moves, salute it;" the FAA says, "If it moves, count it as part of the work force." The Congress finally had to put its foot down and among other things mandate FPL numbers which, according to the GAO, the FAA will not meet again this year.

The FAA is trying to get away from the FPL and use a new term, "Operational Controller" who would be certified on two positions in a facility. The "Operational Controller" is basically a Developmental who is part way through his or her training. This individual does not have the flexibility, let alone the knowledge and experience that an FPL possesses and therefore cannot jump into every position in a sector when, for example, an FPL is sick or on leave.

An Air Traffic Control Facility also operates on mutual trust and peer respect. I do not think that you will find any FPL who enjoyed being a Developmental. It is a combination of boot camp, exam time and guild apprenticeship. However, when you graduate to FPL status, it means that you have earned the confidence and respect of your colleagues. They trust you to move airplanes and they do not have to look over your shoulder as they would with a Developmental or Operational Controller.

That is why such an overwhelming majority -- 85 percent of the Controllers polled -- said that they need more FPLs. They want more fully qualified Controllers at the facility who can hold their own separating traffic and who in turn will be able to provide relief for vacation, sick leave and training.

Controller shortages also have a direct impact on time on position.

FAA work guidelines state that Controllers normally receive a break after two hours on position. However, the GAO survey points out that is not the norm. NATCA has been very concerned about the excessive amount of time Controllers spend on position.

In our new three-year contract with the FAA, we successfully fought to get language included that provides for a break after two hours on position during which no other duties may be assigned. However, Article 33 is prefaced by the term, "when operational requirements permit."

NATCA would have preferred to omit the caveat but the FAA said that they needed it for those "rare" instances when air traffic activity was unpredictably extreme. Our contract went into effect on May 1st and we are going to watch very carefully to see that managers comply with the intent of the article. And they do know its intent from a contract briefing video that is being shown throughout the country. Should a Controller be denied a break from position in all but extraordinary circumstances, we will file a grievance against the FAA which will in turn provide a record of where, why and when these situations occurred. A pattern of denial of breaks from position indicates that the facility is either severely understaffed and/or is not being managed properly.

I want to make it perfectly clear that NATCA is not out to pick a fight with the FAA on position relief. It is our view that competent managers will comply with the article because it is fairly easy to abide by if they take an active role in "managing" a facility, as compared to sitting back and letting Controllers work three hours on postion without a break. That is the easy way out and we want to put a stop to it for the good of the work force and the safety of the ATC System.

We recently had a report from the O'Hare TRACON where every Controller on the shift had worked over two hours and one was pushing three hours without a break. This occurred with only one person missing from the shift. It is also happening quite frequently. Such a situation does not fall under operational conditions permitting. Clearly the operation was out of control and it should have been slowed down until some order and direction was restored.

The FAA's treatment of overtime particularly irks NATCA. Once again, the Agency has engaged in a deceptive public relations game which has not escaped the Controller work force. For years, the FAA took a beating on overtime. Too much overtime meant that there were too few Controllers to handle the work demand. The logical solution was to hire and train more Controllers; that is what most businesses or services would do if confronted with a similar situation.

However, the FAA had another solution -- artificially drive down overtime figures by cutting back on the overtime budget. If you do not have overtime to give, then you can report back to the Congress that overtime has been dramatically reduced. It does not mean, however, that the need for overtime still does not exist. It most certainly does. That is what the GAO survey points out. Overtime is desperately needed to cover peak traffic periods, training and leave, for example.

What has also occurred is that facilities, such as O'Hare, the New York TRACON and the Washington Center to name a few, which need overtime, have to take it from facilities in the surrounding region. It is a classic example of robbing Peter to pay Paul. The overtime deficit is still there but the FAA has quietly buried it.

The fourth area that GAO addresses is quality of training of Developmentals. Once again, NATCA is not surprised by the GAO's findings. We are aware that the FAA has a great deal of faith in the use of simulators but most Controllers are highly skeptical they will deliver all that Agency promises. Most Controllers still believe that there is no real substitute for on-the-job training. You cannot sacrifice quality and experience for expedience which could very well be the result with the FAA's proposed crash course for FPLs.

As I just pointed out, OJT is severely limited by the availability of overtime. One cannot fully staff a facility or a sector and train a Developmental at the same time without overtime.

The survey also bears out that many Controllers are unhappy with four crucial areas of training: using backup systems, controlling traffic in bad weather, emergency procedures and holding patterns. This could be likened to a time of national emergency when a drill sergeant sends a soldier off to the front but wishes that he had additional time to hone those basic skills. If we want training to be better, we are going to have to bite the bullet and pay for the overtime.

As far as NATCA is concerned, contract training is a total wash. Most FPL Controllers view it as cronyism or Beltway Banditry at its worst. Many of these contract are won by former FAA officials cashing in on their years with the Agency. Our members complain about the quality of the teaching and observe that the trainers' knowledge is often dated. "Well that's the way we did it," is a phrase that has been often heard.

The GAO report also states that many FPL Controllers had concerns about Developmental Controller work attitudes and skills. Skills is a difficult question to address since it is assessed through the aptitude test and the screening that is done at the FAA Academy.

The Agency has promised to institute procedures that will provide for a better overall Air Traffic Control candidate; one who stands a better chance of making it all the way to FPL status. NATCA hopes that the program will reduce the embarrassing washout rate that now occurs.

The work attitude among some Developmentals is another question. I believe the FPLs are talking about the "eight-for-eight" attitude -- eight hours pay for eight hours work. FPLs believe in a very strong esprit de corps and work ethic and pulling together for the good of the ATC System. They held the System together after the strike and are very proud of that fact.

The Developmentals do not have this history but I do not personally blame them for any perceived lack of enthusiasm. I put this problem right at the doorstep of the FAA. Callous managers who care only about pumping out aircraft, and little about the people doing it, foster this type of attitude. I believe too that you have to recruit the type of individual who realizes that Air Traffic Control is not just a nine-to-five job. It requires an enormous commitment in time, energy and emotion. Candidates not willing to make that commitment should be discouraged from becoming Air Traffic Controllers.

Perhaps, the most disturbing aspect of the GAO's report involves morale and management's perception of Controller morale. The statistics bear out the charge that FAA managers have totally lost touch with their work force. They had no idea whatsoever that Controllers, let alone their supervisors, were so disenchanted. The FAA managers might as well be a thousand miles away, so isolated are they from the people they are supposed to manage.

Last fall, the FAA had an excellent opportunity for its management to hear from the work force through an employee attitude survey. In an attempt to provide greater accountability, the Agency asked Controllers to evaluate the supervisor by name who then would be required to meet with NATCA's Facility Representative and other employees to develop an action plan to overcome indicated deficiencies. However, the FAA changed its mind in mid stream and said that it would only "enourage" supervisors to share thge results of the survey. NATCA withdrew its support of the survey and many Controllers decided not to participate.

Why then do 43 percent of the Controllers view their morale as low? I touched upon the core reason earlier in my testimony: promises of change and relief that never materialize and an indifferent management that often ignores its work force.

As I mentioned, this low morale is laced with a touch of cynicism. It is the "I'll believe it when I see it" syndrome. For example, last fall, NATCA proposed a 10-point action plan to remedy the deplorable conditions at O'Hare. The FAA accepted the program in principle. To no one's great surprise, the Agency never came through on its commitment.

There are other contributing factors to low morale: overwork, a demeaning and degrading drug testing program that assumes guilt, hardware (particularly at terminals) that does not work, software, such as the ARTS 3.03 program which malfunctions and threatens safety, and the inability to schedule leave. The list goes on and on.

It is no wonder that NATCA won certification and that we now have half of the work force as members. The FAA was the best recruiting tool around. Controllers were feeling helpless in the face of this disinterested monolith. NATCA gives them the only opportunity to effect meaningful and lasting change. They feel it when NATCA is able to tell the Congress what Controllers really think, or when they win a grievance or arbitration against an unfair manager, or when then are given a 15 minute break from position because our hard-won contract stipulates it. We are here because the FAA created the need for a union.

The last general area the GAO addresses is the Controllers' perception of air safety. The GAO found that a vast majority of Controllers believe that the ATC system is safe, but most would say that there is room for improvement. We would agree. The ATC system is safe but there are still gaps in the so-called safety net that should be closed.

As the report pointed out, these areas for improvement varied from Terminal to Centers, with Terminals being hit harder by staffing shortages and hardware unreliability which is made worse by the FAA's continuing and unexplainable decimation of the System Specialist work force. However, there are some common threads: traffic work load, the continuing dearth of FPLs and morale. The Controllers comprehend that the Agency is often limited by funding as to what it can and cannot do, However, what is frustrating to the work force is their perception that the Agency could change many of these items if they wanted to. If FAA's managers took the time to come down to the radar room or up to the tower cabs and listen to their employees, they might learn something about their work force and we might have a safer Air Traffic Control System in the bargain.

Once again, NATCA appreciates this opportunity to present its views on the GAO Controller survey. I wish we could say that conditions have greatly improved since the 1986 survey but obviously they have not. That is a very sad comment on the job the FAA has done. NATCA has promised to work as partners with the FAA and we will continue to do so. We have a very good relationship with FAA senior management in Washington but we have a lot of hard work before we can expect to see some significant changes on the regional and local level.

NATCA will also continue to fight for the rights of the Controller work force and will continue to disagree with Agency when we believe they are acting against the best interests of the Controllers and the System. We are one of the checks and balances that will keep the FAA honest and the system safe. NATCA is very proud of that role and takes it very seriously.

Thank you, we would be happy to answer any questions that you might have.

NATIONAL AIR TRAFFIC CONTROLLERS ASSOCIATION
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June 28. 1989

The Honorable Guy Molinari
Ranking Minority Member
House Public Works and Transportation
  Subcommittee on Investigations and Oversight
2165 Rayburn House Office Building
Washington, DC 20515

Dear Congressman Molinari:

Thank you for your most kind letter of June 6 regarding NATCA's testimony at the recent Subcommittee hearing. We are also most grateful for your unflagging support of the Controller work force and the Air Traffic Control system.

I will answer your questions in the order they were directed:

1) How do you know that the FAA has artificially driven down overtime figures?

We have heard of this activity from many of our facility representatives. A typical example is the Memphis Center where recently, Controllers have become increasingly concerned that the FAA pays more attention to its budget than the proper and judicious use of overtime.

NATCA is justifiably worried that the safety of the system may be compromised when for example, Controllers are on sick leave, but management does not call for overtime because of budgetary restraints. These are perfect cases where overtime should be applied. We can provide you in confidence contacts at facilities such as Memphis Center who can give you in-depth information on this disturbing development.

2) What do you think of the contracting-out of instructor support for developmental training and the use and limitations of simulators?

NATCA believes that the FAA's contracting-out of training has been a complete wash. At O'Hare, for example, the complaint has been that these trainers have lost touch with both technique and the current management of the airspace. "Well, that's the way we did it" is the answer to most criticisms. Both Developmentals and FPLs also fault the contracted-out instructors for lulling trainees into a false sense of security, e.g. giving Developmentals very easy and straightforward traffic and then dumping them into the real and extremely complex world of O'Hare's airspace without adequate preparation and transition. No wonder so many Developmentals fail to make the grade.

It is also true that Developmentals are held back in their training because the contract trainers are so backed up in their work. This is obviously a very mismanaged program that warrants a lot of scrutiny.

NATCA is very concerned about the use of simulators. This is not to say that simulators are not a valuable educational tool; they are, but within certain limits. Our concern focuses on the FAA's heavy reliance on simulators because they do not have enough Controllers for on-the-job training or they will not pay the overtime to FPLs for this training.

I would contend that practically every FPL Controller would say that there is no substitute for working live traffic with an experienced Controller next to you showing you what you did right and what you did wrong. Computer-generated models, no matter how sophisticated, do not impart that sense of responsibility and urgency that live aircraft do.

NATCA is not a group of Luddites attempting to smash the wheels of progress. We believe that simulators are a good tool, but we must keep them in the proper perspective. Just as a pilot is required to have a certain number of "real" flight hours to attain a specific license, so should a Controller have a comparable level of experience. It is an important part of the dynamic.

Air Traffic Control is not a video game; it is a matter of life and death and the flying public deserves Controllers who have had the best possible training that money can buy and this requires extensive on-the-job instruction. There is no other safe way to tackle the assignment.

3) Does an O-J-T instructor need to have been an experienced Controller in the airspace he is teaching?

A Controller giving O-J-T must be experienced in the airspace he/she is teaching. However, the supervisor certifying a Developmental does not have to be checked out in the airspace. This strikes us as a bit odd.

4) How would you compare today's Developmental to those of three years ago? To those before the strike?

NATCA does not believe that today's Developmental is any better or worse than those of three years ago or those before the strike. There have been some perceptions that they are not as good. The problem is that today's Developmental is often being thrust into situations for which he/she is not prepared. We do not understand the logic of the FAA's "sink or swim" philosophy that finds a neophyte Controller thrust into the battleground of an O'Hare or a New York TRACON. If we want to end the high attrition rate among Developmentals, we should bring them along gradually, as one would do in any other stressful profession that demands long and intensive training. The FAA's current approach results in a terrible and unwarranted waste of our most precious commodity -- people.

5) Do you believe that students at the Academy are being pushed through, i.e. that the lowering of attrition rates are artificial?

NATCA has no evidence that this practice takes place. However, it should be reenforced in the public's mind that the Academy is no more than a "screening ground" for Controllers. The real education takes place at the ATC facility. Our membership does not have a particularly high regard for the "teaching" that takes place at Oklahoma City.

6) What happens with attitudes of Controllers who become supervisors/managers?

Not too many years ago, Controllers selected to be supervisors attended a training school in Lawton, KS. The course was sarcastically referred to as the "Lawton Lobotomy," and although Lawton has been replaced by the CHMI in Daytona Beach, not much has changed.

Controllers who want to become supervisors are expected to relinquish their personal views and toe the FAA's historical and autocratic hard line. The farther up the ladder they move, the more isolated from the work force they become. Unfortunately good Controllers become absorbed in the managerial family culture and many lose their sense of perspective as to what it was like to be a Controller. It is not their fault; the blame rests squarely on the FAA's shoulders.

I would like to give you a recent example. Our South Bend, IN Facility Rep Anthony Coiro decided to take the SIDP test. Mr. Coiro received his Bachelor in Business Administration from the

University of Notre Dame and he has been an equal employment opportunity counselor for three years and has conducted FAA supervisor and crew EEO briefings.

After completing the Skill-Based Interviews test, including various role-playing scenarios, Mr. Coiro was informed by the testers/evaluators, who are FAA managers, that they would not recommend him for the "eligible list." He asked what was wrong. The managers said that his answer to a sexual harassment/discrimination question was not up to par. He then explained his background in EEO at which point they admitted that they really didn't understand the subject and would accept his answer. Mr. Coiro asked if the testers could then go back and reevaluate their decision not to recommend him.

They said they would not and there was another problem with Mr. Coiro's answers. They pointed to a scenario where they believed a Controller should have been disciplined by make-believe supervisor Coiro and that they were very disappointed that he did not take this action. "We were looking for discipline; you failed to put the fear into him," he was told.

He asked again whether an explanation of his actions would make a difference in his evaluation. Mr. Coiro was told it would not, so he said nothing. Mr. Coiro, a member of NATCA's contract negotiation team, could have told the FAA evaluators that he could not have disciplined the Controller in question because the new contract specifies the right to union representation in such a situation. He would have been in obvious violation of the contract if he had disciplined the Controller as the FAA managers had wanted. The test was designed to test knowledge of FAA policy. Clearly, the FAA testers had not bothered to read their own contract. NATCA has filed a grievance on the matter. (See Attachment A.)

What this incident proves is that the FAA still wants to indoctrinate new supervisors into thinking like "good ole boys." You are bucking the system if you do not.

NATCA also did not appreciate one bit the statement that FAA made on page 8 of its written testimony: "Controllers helped develop this new method which we call SIDP (for Supervisory Identification and Development Program), and NATCA agreed to its use." This is 100 percent wrong. NATCA did not agree to the use of SIDP. We requested to negotiate on it and we were told by the FAA that it was non-negotiable.

In addition, the FAA is more than aware of NATCA's displeasure regarding SIDP, yet they went ahead and made this statement. On May 1, 1989, NATCA Eastern Region Representative Barry Krasner told

FAA Assistant Administrator for Human Resource Management Herbert McLure that the union thinks that SIDP is a terrible program. It strikes us as particularly arrogant that the Agency would feign no knowledge of our views.

7) Are there any areas that you disagree with in the GAO report?

As we discussed in question 4, the report was too harsh on Developmentals. A lot of their problems are not of their own making but stem rather from the Agency's shortcomings. Other than that, we believe that the report gives a fair and accurate appraisal of current Controller working conditions.

8) When complaints are raised at towers and centers regarding controller morale, for example, how responsive is facility management?

As the GAO report stated, managers as a whole are not aware that there are any problems. They are out of touch with their employees and unfortunately the "chronic complainer" Controller label has stuck over the years. Managers live in a world where everything is right, as long as you stick to their program. Therefore, if you have a problem, it is your fault.

In other words, the majority of managers do absolutely nothing about complaints and morale. Supervisors can be a very different story. They are often more sympathetic since they work with Controllers on a day-to-day basis.

Management is not only unresponsive to complaints, it often makes the situation worse. At one large facility, the manager shames those sectors with high operational errors by posting their names in the radar room. When they improve, the names are taken down. How on earth, does the Agency permit such antediluvian thinking? It has to stop if working conditions are to improve.

I would like to make one additional point. It is with regard to the Survey Feedback Action Program referred to on page 9 of the FAA's testimony. The Agency said that the purpose of the survey "was to give every employee a chance to identify problems and also have a voice in correcting them."

This is a noble objective. However, after the FAA collected the forms, it returned to the facility manager the original comment sheets in the Controllers' own handwriting. It was very easy to see who said what and all confidentiality was destroyed. [I am attaching examples from Tamiami ATCT and we have heard similar reports from other facilities in the Southern Region. See Attachment B.]

The ramifications are obvious. Controllers who were critical of management and facility policies were identified and could now be subject to prejudicial treatment. Reprisals can be very subtle such as watch schedules, Performance Evaluations, promotions and transfers, etc. The breach in confidentiality also means that Controllers will think twice about ever filling out one of these forms again.

9) Are you aware of any instances of Controllers having to buy their own equipment because of inadequate FAA equipment? If so, explain.

Many Controllers purchase a molded ear piece for their headsets as matter of comfort and preference. However, there was a case at Salina, KS ATCT three years ago where the crew had to purchase a pair of binoculars to observe VFR aircraft.

NATCA appreciates this opportunity to respond to your questions and to add to the testimony we presented at the May 25th hearing. Please do not hesitate to contact me or any member of my staff should you need any additional information.

Thank you.

Sincerely

R. Steve Bell

R. Steve Bell
President

/enclosures

0024 HARD U.S. GOVERNMENT PRINTING OFFICE 1987—761-[illegible]

Attachment A

GRIEVANCE RECORD	*FOR FAA USE ONLY* NO.

AGGRIEVED

1A. EMPLOYEE'S NAME NATCA	1B. FACILITY GREAT LAKES REGION	1C. LOCATION GREAT LAKES REGION
2. ARTICLE/SECTION VIOLATED	3. INCIDENT DATE 1988 to PRESENT AND BEYOND	4. NAME OF UNION REPRESENTATIVE JOSEPH M. BELLINO
5. INFORMAL GRIEVANCE OFFICIAL N/A	6. INFORMAL DECISION DATE N/A	7. ORAL PRESENTATION REQUESTED ☐ YES ☒ NO

GRIEVANCE

8. DESCRIPTION

See enclosed Documentation Listed AS NATCA, Great Lakes. Regional GRIEVANCE P 260 164 540.

9. CORRECTIVE ACTION DESIRED

Refer to above document

SUBMISSION		**RECEIPT ACKNOWLEDGED**	
10. EMPLOYEE'S SIGNATURE Joseph M. Bellino	11. DATE 6/12/89	12. MANAGEMENT OFFICIAL'S SIGNATURE	13. DATE

DISPOSITION

14. DESCRIPTION

FAA Form 3770-2 (3-78)

RECORD COPY - 1

NATCA

June 12, 1989

Mr. Teddy W. Burcham
Manager Air Traffic

and

Mr. Thomas Olsen
Manager Labor Relations
FAA Great Lakes
2300 E. Devon Ave.
Des Plaines, IL 60018

CERTIFIED MAIL # P 260 164 540

Dear Sirs:

Enclosed please find Regional Grievance dated 6/12/89, and numbered P 260 164 540. We file this grievance in accordance with Article 9, Section 11, of the NATCA/FAA National contract.

Please inform me, by mail, of the grievance number assigned.

Thank You

Joseph M. Bellino

Joseph M. Bellino
NATCA Regional Representative
3939 W. Main St.
McHenry, IL 60050

NATIONAL AIR TRAFFIC CONTROLLERS ASSOCIATION MEBA/AFL-CIO
Suite 800 • 444 North Capitol Street, Washington, D.C. 20001 • 202/347-8585

NATIONAL AIR TRAFFIC CONTROLLERS ASSOCIATION
MEBA/AFL-CIO
Suite 800 • 444 North Capitol Street, Washington, D.C. 20001 • 202/347-8585

NATCA, GREAT LAKES, REGIONAL GRIEVANCE P 260 164 540

We, the members of the National Air Traffic Controllers Association, Great Lakes Region, GRIEVE the SUPERVISORY IDENTIFICATION and DEVELOPMENT PROGRAM within the Great Lakes Region. We grieve the process used, and the unqualified and inexperienced personnel designated as "interviewers".

We grieve the determinations made by the S.I.D.P. process.

It is our opinion that the careers of our members have been and will be, adversely effected because of a subjective, 20-30 minute interview, conducted by "interviewers" inexperienced and improperly selected to work within a program untested and without managements knowlege of the program's validity.

We include documentation totaling 14 pages and reserve the right to include additional information as it becomes available.

****

CORRECTIVE ACTION DESIRED

(1) Any/all items listed on page "2 of 14" starting at "Here is a summary of my concerns and objections regarding the SIDP", through page "3 of 14" to be resolved and corrected.

(2) Mr. Coiro to be reimbursed for all expenses and loss as listed on page 3 of 14. Mr. Coiro to be made whole in every way.

(3) The Union to reimbursed to the greatest extent as allowed by law for all customary and reasonable expenses, this to include, but not limited to legal fees, required for the defense of this grievance.

(4) All participants in the SIDP program, who feel they have been harmed by the process, program, or any and all areas connected or eminating from the SIDP program to be made whole in every way.

(5) All participants are to be listed on all records as "passed".

This Regional grievance filed by: Joseph M. Bellino

June 7, 1989

Mr. Joseph Bellino
NATCA Regional Representative
3939 W. Main St.
McHenry, Il 60050

Dear Joseph,

On May 24, 1989 I participated in the Skill-Based Interview (SBI) portion of the Supervisory Identification and Development Program (SIDP). I am concerned over what took place and how the program is structured and operated.

I had completed the Peer Supervisory Assessment Profile (Attached), a rating of supervisory potential done by fellow controllers and employees in supervisory, managerial and staff positions in my facility, my rating was outstanding in all five criterion areas. During the next step, the SBI, is where I feel you will share my frustration.

Upon completion of the question and answer phase, the role play scenarios and a lengthy break for the three F.A.A. management representatives to deliberate in private on my evaluation, I was told that they didn't know what to do with me and I would be referred to the Regional Review Board for placement. When I asked for specific problems in my performance during the feed-back session they provided their opinions. They stated some of my approaches to problems were outstanding, others were adequate, and some they didn't understand. Of all the areas covered they felt the following two warranted my not being on the "Eligible for Consideration" list:

#1. Knowledge of Equal Employment Opportunity. They felt my answer regarding sexual harassment was not up to par. During a discussion to justify my answer I informed them that I was an Equal Employment Opportunity Counselor. (My E.E.O. experience has included handling complaints on both sexual harassment and discrimination over the last four years. Also, while on the NATCA national contract negotiating team I was responsible for the preparation and negotiation of the Equal Employment Opportunity Article. I Have just developed and completed a successful joint NATCA/FAA affirmative action employee recruitment program which has received national recognition and hopefully will serve as a national model for future recruitment. Working with the Union's national officers I worked to formulate NATCA's E.E.O. policy pertaining to national committee membership. In addition to the required training to be come an E.E.O. Counselor I have also completed the agency's E.E.O. correspondence course. Finally, as a counselor, I have conducted crew briefings (with supervisors in attendance) on E.E.O. including the very topic that I was rated poorly on.)

The real "Catch 22" came after I had justified my answer, and I believe convinced them that I did indeed know the subject matter. I was told that despite my justification they were not permitted to change the evaluation.

#2. Handling of a "problem" employee. In the verbal feedback session I was informed by the interviewers, that I did not successfully complete the ten minute exercise. In the scenario I was to function as a supervisor conducting an initial meeting with an air traffic controller employee that was possibly abusing leave and was also involved in a possible ATC incident. I asked for the specific problem in my performance. I was told that the meeting was handled well and the areas discussed were good (trying to find problem, career guidance and a plan for follow-up discussions) but " We were looking for discipline....you failed to put the fear into him."

The purpose of the SBI (please see enclosed F.A.A. Memorandum, April 10, 1989 - Action: Skill-Based Interview. first page, last paragraph) is to evaluate knowledge of agency programs and polices. I believe the F.A.A.'s policy is to comply with its negotiated labor agreements. To have applied discipline in this meeting, given the facts presented, would have been a violation of the NATCA/FAA labor agreement in effect at the time of my interview. Specifically, Article 6 - Representation Rights and Article 8 - Partners in Problem Solving. The structure of the role playing prohibited anyone else being present which therefore would preclude any opportunity for Union representation. I could do no more than I did in the role playing and still comply with the polices of the F.A.A. My assessment is that the interviewers and program designers had no knowledge of the content and implications of the current labor agreement as it applied to this test situation. The list of suggested study resources did not mention the NATCA contract.

Here is a summary of my concerns and objections regarding SIDP:

1. The logical conclusion to draw is you could have been successful in this interview only by demonstrating a heavy handed supervisory style and violating the letter and spirit of the national labor contract.

2. SIDP operates on the assumption of interviewer infallibility in making their assessment. The concept of not considering the individuals justification for a response or action in the final evaluation greatly diminishes this program. A fault of the one-way feedback sessions.

3. As described above SIDP appears to be a poor indicator of the candidates subject matter knowledge/competence.

4. Training of the interviewers seemed to be lacking. In no case did I personally observe any lack of effort or dedication on their part but on many occasions it was like watching someone play chess for their first time. (Constantly referring to notes and outlines for what to do next or when asked a question regarding procedure.) Two things indicate to me that this problem was wide spread. First, I could find no one who knew of any terminations during interviewer training for those that did not meet a standard of competence or that knew of such a standard. Second, there appears to be no follow-up or quality assurance program such as sending a fictitious candidate through the process to "test" the interviewers.

5. The memorandum regarding the SBI requests that we update our employment history (which was not complete) and complete a form showing committee involvement and bring it with us to the interview. No one seemed to be designated to accept them.

6. My understanding is that the Regional Review Board, to which my file was assigned, has not yet been established or budgeted for.

This appears to be like the last program (Self Development -- Enhancing Supervisory Potential, See attached "Summary of Training....F.A.A.") I participated in that as well and at my own expense undertook training to qualify, only to have that program cancelled a short time later.

I'll contact you shortly to discuss how we can voice our concern's about SIDP. You are authorized to make copies or share with anyone you wish any records or correspondence provided herein.

Sincerely,

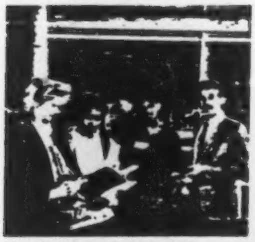
Anthony Coiro

Anthony Coiro
NATCA/SBN
2005 Inglewood Pl.
South Bend, IN 46616

SBN Local Succeeds Where Others Failed In Attracting Minorities To ATC Test

Through a so-called "special emphasis testing program," the NATCA South Bend Local recently played a key role in attracting women and minorities to the FAA Controller aptitude test. Rather than holding the exam at OPM offices in Indianapolis and Chicago, SBN Local President Anthony Coiro worked with local FAA and OPM officials to set up a special emphasis test in South Bend where it would do the most good.

This type of testing should not be confused with a traditional affirmative action program; no additional points are awarded to the target group members. Rather, it is hoped that they will become aware of the test and thereby increase the number of successful applicants from the group.



Cynthia Folkers (L), area Federal Women's Program Coordinator (former NATCA member prior to transfer out of bargaining unit) and Daniel Keough (R), Treasurer, Local SBN, explain career opportunities to two potential candidates at area Chamber of Commerce Career day.

Daniel Pawelski (L), Vice President, Local SBN, explains qualifications for and testing of applicants for ATC positions to Richard Sullivan (R), Vice President for Academic Affairs, at Holy Cross Junior College, Notre Dame, Indiana.

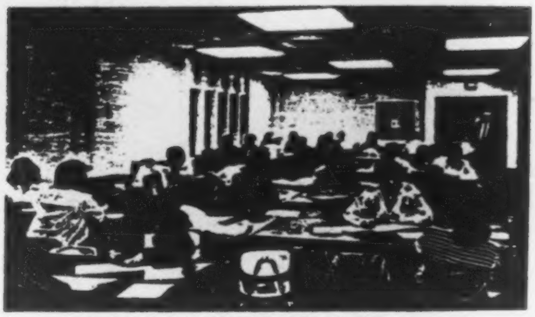
According to Mr. Coiro, the testing program was a group effort with NATCA taking the lead. The genesis of the idea came from discussions he had with NATCA President Steve Bell during contract negotiations last winter.

Mr. Coiro coordinated the testing with Alvin Ray, an Officer with the FAA's Great Lakes Regional Office Civil Rights Staff. SBN management also lent a hand. Manager Robert Flower approved official time for NATCA reps to meet with area civil rights groups, educators and placement personnel to explain the testing.

The key to the success of the program was creating high visibility among the target groups. The local and state t.v., radio and print media were eager to cover the story, and once the Associated Press picked it up, phone calls from applicants came from as far away as Oklahoma and Iowa.

The testing was an overwhelming success, as measured by the turnout. A previous test conducted in Indianapolis by the OPM and FAA attracted only 17 individuals. By contrast, the NATCA-sponsored test brought in 98 applicants, and eight late arrivals had to be rescheduled. Of those who took the test, 80 percent were in the target women and minority groups.

The applicants also got a chance to hear about NATCA, its national commitment to equal employment opportunities and what it has been doing to help the Controller work force and the safety of the ATC system. They came away with a very positive impression about NATCA and they were grateful that we helped bring the test to them.



Testing in cafeteria of Clay High School, South Bend, Indiana.

```
*** OJQ PROFILE ***                                                       SDN


NAME:  COIRO, ANTHONY W  12

RATING GROUP:  PEER AND SUPERVISORY ASSESSMENT

GREAT LAKES REGION/TOWER/GRADES 10-12

SIZE OF GROUP:  253

RATING DATE:   JAN 1989
      /


CRITERION                                  PROFILE                             SCORE'


                     ----------------------------------------------------
                     |                                                  |
COMMUNICATION        |>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>            | 68
    SKILL            |       A          V               O               |
                     |                                                  |
INTERPERSONAL        |>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>          | 75
    SKILLS           |          A      V             O                  |
                     |                                                  |
LEADERSHIP           |>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>         | 76
                     |       A        V                 O               |
                     |                                                  |
PROFESSIONAL         |>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>                | 60
    COMPETENCIES     |    A          V            O                     |
                     |                                                  |
COMPOSITE            |>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>          | 70
    SCORE            |      A        V                O                 |
                     ----------------------------------------------------

PREPARED BY SUPERVISORY IDENTIFICATION & DEVELOPMENT PROGRAM
```

```
**************************************************************
*                                                            *
*          PERSONAL DATA -- USE IS RESTRICTED                *
*                                                            *
*         TO BE TREATED IN A CONFIDENTIAL MANNER             *
*                                                            *
* WHEN NOT IN USE, IT IS TO BE STORED IN A LOCKED CABINET OR *
* SECURE AREA.  IT MUST BE DISPOSED OF PROPERLY.  EMPLOYEES  *
* WHO VIOLATE THE PRIVACY SAFEGUARDS MAY BE SUBJECT TO       *
* DISCIPLINARY ACTIONS, A FINE OF UP TO $5,000, OR BOTH      *
* (P L. 93-579).                                             *
*                                                            *
**************************************************************


         SIDP HISTORICAL REPORT OF WORK EXPERIENCE, EDUCATION, TRAINING AND AWARDS AS OF 89-04-20 FOR:

                   NAME:  COIRO, ANTHONY W                              SSN:  [redacted]

************************************************************************************************************

                                             SUMMARY OF FAA WORK EXPERIENCE

                                                    FACILITY
              TITLE                    GS  RTG SYM  TYPE & LEVEL    FROM        TO                FACILITY
              -----                    --  -------  ------------    ----        --                --------
JOURNEYMAN                             12  SSN      ATCT     3    85-03-17              ATCT- SOUTH BEND, INDIANA
DEVELOPMENTAL                          11  SSN      ATCT     3    84-01-08    85-03-17  ATCT- SOUTH BEND, INDIANA
DEVELOPMENTAL                          09  SSN      ATCT     3    82-07-25    84-01-08  ATCT- SOUTH BEND, INDIANA
DEVELOPMENTAL                          07  SSN      ATCT     3    82-04-04    82-07-25  ATCT- SOUTH BEND, INDIANA

************************************************************************************************************

                                              SUMMARY OF EDUCATION

HIGHEST EDUCATION LEVEL ATTAINED:     BACHELORS DEGREE
DEGREE YEAR:                          80
DEGREE:                               BA
SCHOOL:                               UNIVERSITY OF NOTRE DAME
MAJOR:                                BUSINESS MANAGEMENT AND ADMINISTRATION
MINOR:

************************************************************************************************************
```

SUMMARY OF TRAINING RECEIVED WHILE WITH FAA

NAME: COIRO, ANTHONY W SSN: [redacted]

TRAINING DESCRIPTION	COMPLETION DATE
LABOR-MANAGEMENT:PARTNERS IN PROBLEM SOLVING	88-06-30
BASIC LABOR RELATIONS (CORRESPONDENCE)	86-09-01
EQUAL EMPLOYMENT OPPORTUNITY	86-02-01
OPM EEO COUNSELING, BASIC	85-12-05
SELF DEVELOPMENT--ENHANCING SUPERVISORY POTENTIAL	85-12-05
TERMINAL PHASE XA - RADAR AIR TRAFFIC CONTROL	84-02-15
OJT INSTRUCTION TECHNIQUES FOR ATCS	84-01-10
OJT INSTRUCTION TECHNIQUES FOR ATCS	84-01-03
TERMINAL PHASE IX - FACILITY QUAL - LOCAL CONTROL	83-12-30
ATC OPERATIONAL REMEMBERING & LISTENING - TERMINAL	83-12-05
EMERGENCY READINESS, INTRODUCTION TO	83-11-16
ATC JOB STRESS MANAGEMENT	83-11-07
OJT INSTRUCTION TECHNIQUES FOR ATCS	83-10-30
TERMINAL PHASE VIII-FACILITY QUAL-GROUND CONTROL	83-05-15
TERMINAL PHASE VII-FACILITY QUAL-CLEARANCE DELIVER	82-11-29
FLIGHT DATA TERMINAL	82-11-29
TERMINAL INITIAL QUALIFICATION COURSE	82-07-16
TERMINAL PHASE IV - NON-RADAR AIR TRAFFIC CONTROL	82-07-15
TERMINAL CONTROL TOWER OPERATION (PHASE III)	82-05-19
TERMINAL PHASE II-FUNDAMENTALS AIR TRAFFIC CONTROL	82-04-28

SUMMARY OF FAA AWARDS HISTORY

NAME: COIRO, ANTHONY W SSN: [redacted]

AWARD NAME	DATE
SPECIAL ACT/SERVICE - ON THE SPOT AW	88-08-28
PERFORMANCE AWARD - NON-PMRS EMPLOYE	88-08-28
OFFICIAL LETTER OF COMMENDATION	87-08-10
QUALITY WITHIN-GRADE INCREASE	87-03-01
OFFICIAL LETTER OF COMMENDATION	86-12-12
OFFICIAL LETTER OF COMMENDATION	85-11-20
OFFICIAL LETTER OF COMMENDATION	85-03-19

U.S. Department
of Transportation
Federal Aviation
Administration

Memorandum

Subject ACTION: Skill-Based Interview

Date APR 10 1989

From Manager, Human Resource Management
Division, AGL-10

Reply to
Attn of

To SIDP Candidate

Congratulations for successfully completing the Peer Supervisory Assessment under the Supervisory Identification and Development Program. Your next step is the Skill-Based Interview (SBI).

Your supervisor shall notify you of your interview schedule. You will be interviewing at:

Embassy Suites Hotel
6501 N. Mannheim Rd.
Rosemont, Illinois 60018

The SBI will take approximately 2 1/2 hours to complete. Soon after your interview you will receive oral feedback on your performance. A written report will be sent to you through your facility manager and supervisor after all the interviews are completed.

If travel and/or per diem are involved, please use the following appropriation:

901.0/3240/825/2112/CSIDP - Transfer to Washington

If you are coming from out of town, please work with your facility manager on the travel and accommodations. Process your travel vouchers as usual and forward two copies to Valerie Granahan, SIDP Manager, AGL-14.

You will be interviewed by a SBI panel of three trained interviewers.

The SBI is designed to evaluate your knowledge of agency programs and policies. It also measures supervisory skills/abilities such as problem solving and analytical ability; judgement; decisiveness; organizing and planning; interpersonal/human relations skills; communication; and leadership. A definition of these skills is attached.

Based upon your performance in the SBI, you will be placed in one of the following groups:

1. Eligible for Consideration: Candidates in this group are placed on a list of eligible for supervisory positions. If required, they are provided with developmental activities for certain areas that might need improvement.

2. Referral to the Regional Review Board (RRB). Candidates in this group are referred to the RRB who will determine their placement in one of two groups.

    a. Formal Development Group. Candidates placed in this group by the RRB, are determined to be ready for supervisory positions after formal development in certain areas. An Individual Development Plan (IDP) will be developed and agency resources will be used to provide developmental activities. At the end of a specified period of time, the RRB will review the results of the IDP and determine whether to place the candidate on the "Eligible for Consideration" list or have the SBI repeated.

    b. Self Development Group. Candidates placed in this group by the RRB will be expected to seek developmental activities using their own resources and time. Candidates in this group may reapply when the announcement is open.

3. Self Development Group. Candidates from the SBI who are placed directly in this group may pursue developmental activities using their own resources and time. They may reapply again when the announcement is open.

How You Should Conduct Yourself During the SBI

1. Take the SBI seriously. A positive attitude will evidence itself in your performance. Some of the problems or exercises may seem to be "artificial" or not "real life". We have attempted to make the situations as realistic as possible. However, the constraints of designing simulation exercises for a SBI sometimes make this difficult or impossible. Treat the problems as if you were really in the

situation. Although they are not situations that are specific to an air traffic manager or supervisor, they are designed to measure skills that are required for effective performance as a first level supervisor in the FAA.

2. Be yourself. Do not try to "fit the mold" you may imagine for an air traffic first level supervisor. Do not make assumptions about what the interviewers are looking for.

3. Do not try to second guess the exercises. Everything is straight-forward. There are no "tricks" for you to catch. Just read and follow the instructions.

4. Do not deviate from the data in the problems. Use the information and the instructions you have available.

5. When the interviewer is playing a role, behave toward him or her as you would toward the person he or she represents. The interviewer is portraying a situation that may occur on the job. Your task is to respond to the situation as you would on the job.

6. Do not discuss the exercises during the break times or after the interview. Some people will not have taken the exercise you have just finished. You may only be providing erroneous information or causing a friend undue anxiety.

Also attached is your employment history. This includes your education, training, experience, and awards received. There is also a form for membership in any committees. Please update this information and bring it with you to the interview.

Please call Valerie Granahan at FTS: 384-7735 or 312/694-7735 if you have any additional questions.

Keith D. Burt

Keith D. Burt

Attachments

Skills and Abilities
Employment History

U.S. Department
of Transportation
Federal Aviation
Administration

Memorandum

Subject ACTION: Peer Supervisory Assessment (PSA) Profile

Date MAR 2 4 1989

From Manager, Human Resource Management Division AGL-10

Reply to Attn of

To Coiro, Anthony W.

The results of your Peer Supervisory Assessment are shown on your PSA profile which is attached. The following provides a review of the process and an explanation of the PSA profile.

Review of the PSA Process

The PSA is a measurement process in which you were compared with other candidates and with performance indicators. You nominated several peers and your immediate supervisor, to measure you in this process. Each of the nominated raters was given a list of comparisons (of applicants to applicants and applicants to performance indicators) for each of the four supervisory criteria (leadership, communication, interpersonal relations, and professional competencies). The rating forms were individually prepared, for each of the raters and each of the four criteria. The results of the ratings were entered into data processing equipment. Accuracy was insured by double entry and numerous in-process audits. The PSA is a measurement of how others who work with you perceive your performance compared to other applicants in your, region, grade, and option as well as to the performance indicators used. The PSA score is designed to give the best possible overall estimate of your performance level at this time. The use of multiple rater helps to insure that someone will not be discriminated against or favored for any reason other than performances.

Interpreting the Profile

The Profile is a graphic representation of how your raters perceived your performance on the four criteria. In addition, there is a composite score which combines the results on all four criteria. The profile is developed by comparing your results with those applicants in your region, option and grade.

The person who ranked the highest within your applicant group (your region, option and grade) would fall on the far right hand of the scale of the profile. The person who ranks lowest in this group will fall on the far left. The performance indicators are distributed along the continuum. The computer has generated a summary of all ratings for you which shows where you stand in relation to all other applicants in your grade and option. Placement is shown in relation to the performance indicators. The bar on your profile represents where you stood within this group on each criterion. The profile also shows you where the performance indicators of "outstanding" (O), "very effective" (V), "acceptable" (A), fall for your group. For example, if the bar on your profile extends to the right of the "V", this means you are seen as performing above "very effective" on that criterion.

To assist you in interpreting your own profile, please refer to the sample profile on the next page for "Joe Controller." Joe is from Southwest Region, he is in the terminal option, and he is a GS-11. There were 51 people in this group of applicants. His profile is generated on the results of this particular group of people. The lowest ranking person in this group of 51 would have their bar placed all the way to the left of the profile. The highest ranking person in this group of applicants would have their bar placed all the way to the right (see Joe's Professional Competencies score).

The "O" defines the bottom of the "Outstanding" range, the "V" defines the bottom of the "Very Effective" range, etc. Interpersonal Skill and Leadership are the two skill areas that Joe should consider developing and strengthening because Joe's raters perceive those areas as his weakest.

The numerical scores to the right of the profile graph indicate the actual quantified consensus score you achieved on each criterion. This score determined your ranking within the group and placements on the graph. The possible score range is 0-100. The numbers have no qualitative value in themselves but are used only to show the standing of individuals within the group being evaluated. For example, a score of "95" does not necessarily equal "A" in traditional grading systems, but only implies that the raters' consensus is that they feel the person who achieves a "95" is close to performing the maximum standards within the context of the group being evaluated.

SAMPLE PROFILE

```
    PSA  PROFILE ***

                       ------- SIDP -------

NAME:  Joe Controller
RATING GROUP:  Southwest - Terminal - GS-11
SIZE OF GROUP:  51
RATING DATE:  JANUARY 89

CRITERION                              PROFILE

                Lowest here                          Highest here

COMMUNICATION       |>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>        | 88
SKILL               |           A        V       O            |

INTERPERSONAL       |>>>>>>>>>>>>>>>>>>>>>>>>>>>>>            | 78
SKILL               |              A       V        O         |

LEADERSHIP          |>>>>>>>>>>>>>>>>>>>>>>>>>>>              | 72
                    |               A       V        O        |
PROFESSIONAL        |>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>| 99
COMPETENCIES        |              A       V        O         |

COMPOSITE           |>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>        | 84
                    |             A        V      O           |
```

According to this sample profile, Joe is one of the top people in his group on Professional Competencies. As you can see, the performance indicator scores are also shown. The performance indicators will be in the same place for everybody in this group. Only the length of the bar changes for each individual.

Joe is also perceived by his raters as "Outstanding" in "Communication" but there are higher scores than his in this group on this criterion. Joe is perceived at performing at the "Very Effective" level in "Interpersonal Skill" and "Leadership." He is closer to the "Outstanding" level in "Interpersonal Skill" compared to "leadership."

The "Composite" is a simple average of the scores on all criteria. Joe's average score is slightly above the average of the "Outstanding" performance indicator. There are others with higher composites.

You cannot interpret your profile by measuring the length of the bars to determine how many people are below you. Your position on each criterion is in relationship to the highest and lowest scores and the performance indicators.

In interpreting your own results, remember:

1) Your profile is the consensus of the raters you selected for this process.

2) Your profile is developed in relationship to your "peer group" - the other applicants in your region, grade and option.

3) The decision for determining who is referred to the skill-based interview is based on the distribution of scores, the number of anticipated vacancies, and on the desired ratio of candidates for each projected vacancy. If you are not referred, you must not think that this means you are "unsatisfactory" in some way, or that you are not doing a good job in your present position, or that you are not a "good" person. It is only a measure of how your raters perceive your supervisory potential at this time, compared with the other applicants.

4) You should work closely with your supervisor to focus on the developmental activities necessary to address skill areas you need to strengthen. Your supervisor should be the first resource for discussion and questions. We will be your second-level resource for questions.

Successful candidates will receive a letter regarding their participation in the next phase of the program, the Skill-Based Interview (SBI). If you have any questions regarding the PSA Profile, you may talk with your supervisor or call Valerie Granahan at FTS: 384-7735 or (312) 694-7735.

Keith D. Burt
Keith D. Burt

Attachment

Attachment B

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SOUTHERN REGION
AIR TRAFFIC DIVISION
ATCT TAMIAMI AIRPORT, MIAMI, FL

SURVEY FEEDBACK ACTION PROGRAM COMMENT SHEET

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TO MAKE THE FAA BETTER, HAVE SUPERVISORS RATED BY THERE CONTROLLERS AS TO FAIRNESS AND EQUALITY AND THEIR ABILITIES TO SUPERVISE. AT TMB WE HAVE ONE SUPERVISOR WHO LETS PEOPLE SIT ON POSITION FOR OVER TWO HOURS WITHOUT BREAKS WHILE HE SITS IN HIS OFFICE WRITES SONGS. AND THE OTHER ([redacted]) MAKES COMMENTS ABOUT CONTROLLERS TO OTHER CONTROLLERS - HE SETS UP SITUATIONS BETWEEN TWO CONTROLLERS AND WATCHES THEM FIGHT, AND HE COMES IN AFTER HOURS AND DESTROYS OR STEALS STUFF. IT WAS THE GOOD OLE BOY SYSTEM THAT GOT HIM HIS JOB. BUT IF YOU INVESTIGATED IT WOULD NOT TAKE MUCH TO GET RID OF HIM. [redacted] IS AN EXCELLENT CHIEF - HE WILL BE MISSED.

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The major problem at Tamiami Tower is [redacted]

[redacted] has very extreme mood swings, one day everything is great the next we are in for hell. [redacted] also is constently after one or two poeple, and riding them. He also promotes a constant termoil by keeping the people stired up. He does this by either talking about different poeple behind their backs, this includes the facility manager and his fellow supervisor, or by trying to get any discrupency and using it against them to continue the haressement.

[redacted] is also extremely difficult on trainees, and will frequently be so cruel in his manorism that it is hard to imagine anyone serviving the training program.

Some of these problems with [redacted] have been brought to the attention of the facility manager. The facility manager has worked on some of these but for the most part has accomplished nothing. Also it should be noted that most in the facility are afraid of [redacted] and if the past is true he will retaliate if anyone does go against him.

My sugestion is that a indepth study be done to identify both the validy of this statement and if possible the cause. Further provide [redacted] with appropiate guidence and assistance to correct these diffiencies.

At this point I feel it important for you to realize that much more depth both in the amount of problems and also the solution are necessary which there is not enough space for. I hope this is truely confidential and that something positive will follow to improve our facility.

SO, Region
AT Division
Tamiami ATCT

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Promote controllers from Lvl II + III VFR Towers that have done a satisfactory job and desire career progression regardless of whether or not somebody in the regional office or ~~of~~ selecting facility likes you personally. Also promote white males more instead of this reverse discrimination B.S. (females, blacks, hispanics, ass-kissers, etc.) Also consider giving controllers a salary boost, as there are landscapers making the same amount or more. The US gov't is way behind the private sector in yearly raises. ~~Pott.~~ Placing military controllers in radar slots the could have been for VFR controllers, destroyed much of the faith of many controllers in the FAA. Start treating us like we count. There should also be more open channels between the region and controllers (not just management). There are a lot of controllers becoming more + more discontent with their jobs + the FAA in general. There has to be some changes

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NOT ENOUGH LETTERS OF COMMENDATION
& ACKNOWLEDGEMENT OF A JOB
WELL DONE BY MANAGEMENT

• U.S. GOVERNMENT PRINTING OFFICE: [illegible]

SURVEY NETWORK ™

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THE ONE SINGLE MOST IMPORTANT ISSUE FOR MY FACILITY TO WORK ON THIS YEAR IS... PILOT / CONTROLLER UNDERSTANDING OF EACH OTHERS DUTIES. MANY PILOTS DON'T SEEM TO UNDERSTAND WHY CERTAIN CONTROL INSTRUCTIONS ARE GIVEN. IF THEY KNEW WHY, THEY WOULD COOPERATE WITH FEWER QUESTIONS. WE SHOULD HOLD MORE PILOT/CONTROLLER MEETINGS TO EXPLAIN THESE THINGS. OR, PERHAPS A VIDEOTAPE COULD BE MADE, SHOWING TOWER POSITIONS AND JOB DESCRIPTIONS, LOCAL PROCEDURES, AND TYPICAL PROBLEMS OF DAY-TO-DAY OPERATIONS, AND DISTRIBUTE THE TAPE AMONG LOCAL PILOTS AND FLIGHT SCHOOLS. ALSO, WHAT HAPPENED TO THE RIDE-A-CONTROLLER PROGRAM? I'VE BEEN THE FAA FOR 7 YEARS AND HAVE HAD ONLY A FEW FLIGHTS IN LOCAL AIRCRAFT, INCLUDING NOT ONE IN ALL OF 1988. WHEN SOLICITED FOR A FLIGHT I'M ALREADY AT WORK, UNABLE TO ACCEPT BECAUSE OF TIGHT STAFFING. I'VE CLEARED AIRCRAFT FOR THOUSANDS OF TOUCH-AND-GO'S, BUT NEVER BEEN IN AN AIRPLANE MAKING ONE! HOW CAN I RELATE TO THE PILOTS POINT OF VIEW AND HIS PROBLEMS IF I HAVE SO LITTLE CONTACT WITH THEM?

* U.S. GOVERNMENT PRINTING OFFICE: [illegible]

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THE ONLY SUGGESTION FOR IMPROVEMENT IN TMB ATCT IS TO ENCOURGE MANAGEMENT TO CREATE A HUMAN RELATION PROGRAM TO IMPROVE + MOTIVATE CERTAIN EMPLOYEES ATTITUDES IN THE WORK PLACE. GETTING EVERY ONE IN THE FACILITY INVOLVED WILL AT LEAST REMIND THEM THAT HUMAN RELATIONS EXIST. ANY THING IS BETTER THAN NOTHING (EVEN A POSTER ON THE WALL) MIGHT HELP.

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SURVEY NETWORK™

E. I am aware of what the Employee Assistance Program can do for me.

1. Strongly Agree
2. Agree
3. Neither Agree nor Disagree
4. Disagree
5. Strongly Disagree

   Do Not Know

F. My workplace is free of sexual harassment.

1. Strongly Agree
2. Agree
3. Neither Agree nor Disagree
4. Disagree
5. Strongly Disagree

   Do Not Know

G. Employee work groups, formal and/or special purpose groups, are being used effectively in my facility/field office.

1. Strongly Agree
2. Agree
3. Neither Agree nor Disagree
4. Disagree
5. Strongly Disagree

   Do Not Know

The next question is open-ended. If you desire to respond to it, please do so on the comment sheet attached to the survey form:

H. In your opinion, what is the single most important issue for your facility/field office to work on this year?

As this facility has an extremely high volume of student pilots, and many pilot errors occur. I feel more communication with the instructors is necessary, and making the instructors responsible for their students. I also feel the facility management should put more importance on insuring that Air Traffic Control instructions are complied with,

So, Region
AT Division
Tamiami ATCT

SURVEY FEEDBACK ACTION PROGRAM COMMENT SHEET

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Many contradictory situations exist, caused by the attempt to standardize all possible ATC functions. the 7110.65, the new OPS and facility operation handbook overlap in many areas.

Local supervisors at my facility do a good job, The only comment pertinant to my supervisor would be to try and remain away from associating with certain 'clicks' and associate with all employees equally.

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THE SINGLE MOST IMPORTANT ISSUE IS TO REDUCE ① the work week, then ② RE-EVALUATE LEVEL'S at FACILITIES NOT JUST FOR THE GRADE but FOR STAFFING; there should be A PRODUCTIVE ONGOING TRAINING schedule FOR FPL'S AND A much better training program for developmentals. THE EVALUATION AND ABILITY OF TRAINERS SHOULD BE A PRIORITY as well AS THE TRAINING PROGRAM. People should be hired IN AT the lower level FACILITIES FIRST AND "GROW" in the system.

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ATC Policy – I disagree with the program of hiring new [illegible] controllers and sending them directly to radar facilities. This has stopped or delayed my chances or kids to certain radar facilities.

[illegible] policy – I agree with the policy of sending all controllers to OKC for radar training, but how about taking that a step further and train everyone for [illegible] [illegible] would have [illegible] to choose from instead of choosing [illegible] send them to radar school.

-8- We have one break area (kitchen/Eng./TV) area for [illegible] at this facility. We also have a no smoking rule in effect in the cab, which is good, but non-smokers + smokers need separate break areas. When one smoker is in the break room (10'x10') it becomes polluted [illegible] for a long period of time. Also these smokers [illegible] up [illegible] down the cab stairs, in hallways, bathrooms + elevators. I suggest smoking in certain areas and equal areas for smokers + non-smokers.

(NEXT page)

TO
Southern Region
Air Traffic Division
ATCT Tamiami Airport
Miami, Fla

COMMENT SHEET (cont)

I have a problem with performance evaluations as they are interperetted here at TMB. One supv. seems to rate according to seniority. Example: I received an "acceptable" but low rating. I could have accepted this but the reason was because I was newly checked out. If that was the reason then I should have received the highest rating because being newly checked out I haven't developed any old salt/bad habits; why, the rating sheet reads like the OJT training sheet and months before they were all checked satisfactory now I get a mediocre P.E.R. and the reason is that I'm newly checked out.

I disagreed with the evaluation at the time but didn't see that he agreed and would change it so I signed it.

I have talked with another newly checked out specialist with the same supv. and the same thing happened. To add insult to injury, I talked to another newly checked out specialist on another supervisor's team. He received an excellent and a cash award at the end of the fiscal year. I personally could have used that award money also.

FMA

Federal Managers Association

STATEMENT OF
MAURICE F. CONNOR, CHAIRMAN
FAA CONFERENCE
OF THE
FEDERAL MANAGERS ASSOCIATION

BEFORE THE SUBCOMMITTEE ON
INVESTIGATIONS AND OVERSIGHT
OF THE
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
HOUSE OF REPRESENTATIVES

MAY 25, 1989

1000 16th Street NW Suite 701 Washington DC 20036 (202) 778-1500

Mr. Chairman and Members of the Subcommittee:

Thank you for the opportunity to appear before the Subcommittee to present the views of the Federal Managers Association on aviation safety and working conditions within the air traffic control work force.

The FAA Conference of the Federal Managers Association represents nearly 1,000 first-level air traffic and airways facilities supervisors and managers at FAA towers and centers throughout the nation. The members of our conference are responsible for the daily supervision and management of the controllers and technicians who help to keep our nation's skies safe.

My remarks today are exclusively those of the Federal Managers Association and do not necessarily represent the opinion or view of the Federal Aviation Administration.

The GAO Report: A Valid Assessment

We have reviewed the findings and conclusions of the recently released GAO survey of the air traffic work force on working conditions and other aspects of the air traffic control system. The GAO survey findings, in our opinion, reflect the views and attitudes of the controllers, supervisors, and managers employed throughout the FAA's network of air route traffic control centers and terminal facilities.

The survey finds that controllers and supervisors believe that the shortage of full performance level (FPL) controllers and the heavy volume of air traffic are the two factors that most hinder the maintenance of air traffic system safety. Facility managers agree with this assessment, according to the GAO, but not with the same intensity of concern.

The paramount concern of our members, who primarily include first-level air traffic supervisors and managers, is how safely can we operate and maintain the nation's air traffic system. Air traffic is expanding rapidly, and the number of developmental controllers and FPL's increasing slowly, to a point that may constrict our capability to operate the system within an acceptable margin of safety. There is a natural limit on the capacity of the system to operate safely, so long as human and technical resources generally remain the same and air traffic increases. We are approaching that critical point.

That technical improvements have increased system safety is certainly without doubt. The introduction of the host computer system and improved air traffic flow control procedures have helped to better regulate the volume of traffic each controller receives and works. However, these safety-related controls have a downside. Without adjustments in airline scheduling practices and realignment of hub configurations, departure and arrival delays may increase for air passengers.

FPL's and Traffic Volume: The Foremost Challenges

In our view, the challenge of increasing the number of FPL's and better controlling traffic flow are the foremost demands facing the FAA. Problems with workforce morale, working too long without a break, overtime, and training are subsidiary components of these two larger issues.

To its credit, the FAA has attempted to deal with this situation through the introduction of several initiatives dealing with recruitment, hiring and training. Chief among these is FAA's plan to establish a pay demonstration project to attract air traffic controllers to the facilities most in need of full performance level controllers.

These difficult-to-staff facilities, in our view, tend to reflect the most serious concerns that GAO has identified. Work load, controller morale, and

FPL staffing strength comprise the core concerns of controllers at these facilities. Although GAO did inquire into attitudes about pay, we believe that pay is also a major concern. It is our view that efforts aimed at improving pay at difficult-to-staff facilities, more than any other approach, will lead to the improvement in many of the negative perceptions and problems that GAO has identified in its report.

The availability of significant pay supplementals, at a minimum of 20 percent of base pay, will attract experienced controllers who have had not been sufficiently attracted to seek employment at high-volume facilities in areas with a high cost-of-living. If FAA proceeds with the pay demonstration project on a stable financial footing, one that assures prospective transferees of reasonable program longevity, we believe the pay demonstration project will yield substantial dividends in improving the air traffic system.

Another approach to the FPL shortage, we believe, could involve the rehiring, on a part-time basis, of controllers who have retired in recent years, and the assignment of them to control positions commensurate with their abilities and desires. They also could be assigned to classroom instruction activities, allowing younger controllers to return to operational duties.

Beyond these efforts, there is a need for expansion and improvement in the FAA's efforts at upgrading developmental controllers to the full professional level. According to the GAO, from 1987 to 1988 the number of FPL controllers increased by only 0.6 percent. This stands in dramatic contrast to a significant increase in air traffic over the last several years. There is a need to increase the number of potentially successful controllers in the training pipeline. Three to four years of instruction and on-the-job training are required to produce a full professional level controller. Along the way, a considerable degree of attrition--up to forty percent--in the developmental controller ranks occurs. This training and development effort inefficiently absorbs an extraordinary amount of FAA resources. Better ways need to be developed to identify successful controllers at an earlier point in the training process.

As this Committee has recognized, there remains a need to increase the number of new controllers hired. We are encouraged that FAA has recently launched recruitment and training initiatives in this area. These initiatives are long-term in nature and will require continued management support. Despite the progress FAA has made this year in hiring and certifying new controllers, we do not expect FAA to meet its FPL staffing goals.

Why Are Manager/Controller Views So Different?

The GAO has identified a substantial difference between controllers' views of their morale and facility managers' views of work force morale. The GAO suggests that this disparity reflects a communications gap between FAA facility management and the controllers.

We partially concur in the GAO's assessment, but also believe that controllers and managers will continue to have problems agreeing on their work and working conditions. The manager/controller perception disparity primarily owes itself to the differences in job responsibilities of the two groups. Controllers and facility managers work in largely different fields. Controller responsibilities are entirely operational in nature, while manager responsibilities relate to budget, staffing, and technical aspects of the facility's operations. This difference in responsibility tends to make it difficult for facility managers to remain current and advised of controller views. Managers tend to remain in their own spheres; controllers are disinclined or reluctant to express their concerns to facility managers. Communication is difficult. Without active intervention by communication-support mechanisms, such as facility advisory boards, managers and controllers will tend not to communicate with one another as fully as they should about working conditions and the quality of air traffic system services. There are facilities where good lines of communication between managers and controllers exist. What goes on at those facilities that provides for good communication and working relationships should be studied and replicated elsewhere in the system.

The disparity in perceptions between managers and controllers is also due to another factor. The controller work force of today is different from the work force of ten years ago. Forgive me for sounding like an old wag when I say the following, but I believe these views can contribute to a fuller understanding of the GAO's findings. I believe that the unanimity of purpose, or the esprit de corps, that existed among members of the pre-strike controller workforce is absent to a degree among today's air traffic controllers. Personal needs and gratification occupy a higher priority among members of today's work force than they once did. Today's controllers tend to focus more on personal, external issues and tend to be less focused upon the betterment of the air traffic control network as an institution.

In making these comments, I am not offering a value judgment or negative view of today's controllers. I am simply offering a perspective that should be used as a tool, a prism, to better understand controller views on working conditions, as reflected in the GAO report. And in that same sense, this historical difference in controller views should be used to understand the challenge that facility managers, most of whom are of the "pre-strike generation", face in staying in touch with controllers at their facilities.

This controller/manager communications gap is part of a communications problem at FAA that transcends the controller and facility manager relationship. This communications gap exists in a larger sense in the relationship that FAA headquarters maintains with its regions and field personnel. Each reorganization at FAA creates uncertainty and overlapping jurisdictions. Functions or levels within FAA tend to communicate at that particular level and upwards. Little communication takes place across disciplines or downward. Feedback is missing.

A prime example of the lack of communication in this sense is a recent effort involving FAA headquarter's plan to require use of a controller survey on supervisor and manager performance and practices at air traffic facilities. Let me say that our organization supports every effort by the FAA to increase mutual communication and improved performance throughout the FAA controller and management ranks. However, the FAA feedback survey project has been an ill-conceived effort lacking in communication, consultative effort between FAA and employee organizations, legal compliance, and common sense. In the words of one FAA official, "We've done an enviable job in coming up with the survey project. Not only did we anger supervisors and managers, we also angered unions and bargaining unit employees." Open communication by the FAA with all parties envisioned as participating in the project, we believe, would have prevented this kind of result and produced a workable solution agreeable to all.

Within FAA, as all organizations, there are some excellent individuals who possess the courage and candor to provide honest, straight-forward answers to difficult, complex questions. At times, these individuals are called upon to defend their positions in an open forum. We applaud such efforts and note that these "leaders" at FAA should be role models and their effective style of communicating be encouraged throughout the organization and government.

Terminal vs. Center Differences

The GAO has suggested that overall conditions at terminals appear to have worsened more than at centers in such areas as high traffic levels/work load, personnel shortages, overtime, work attitudes/morale, hardware, and software. We have witnessed a staffing practice at FAA to assign higher-graded controller trainees to centers than to terminals. Centers also tend to be located in areas that possess a relatively lower cost-of-living than many terminals. Consequently, there is an FAA practice–and a human dynamic–at work in shifting more and higher-qualified resources to the centers than to the towers. This only compounds the need for a pay differential to be available for use at difficult-to-staff facilities.

The Need for Further Study

The General Accounting Office has provided a professional and credible product in its survey of air traffic workforce attitudes on work and working conditions. However, the GAO has left unaddressed a major question dealing with what "drives" the conditions and attitudes its survey reveals. Is the shortage of controllers due to overall budget considerations, lack of qualified applicants, inadequate planning or quality of life considerations?. Why is morale a major factor? Do factors external to FAA, for example, pay, personnel rules and regulations, low perceptions of government workers, and frequent changes to Federal employee benefit programs, result in the creation of low morale? These issues should be the subject of follow-up studies by GAO and others.

In addition, the FAA should consider using GAO's survey data to establish a database on internal or external concerns at each of facilities surveyed. Facilities with excellent reports and self-image should be identified as "models" for further study and replication elsewhere in the FAA. Up until now, the predominant emphasis has been on the negative, and little attention has been directed toward identifying and replicating examples of excellence already existing within the FAA.

Further study should also involve examination of the quantity and quality of the technical workforce. We question whether the FAA maintains sufficient numbers of technicians to repair its air traffic equipment. Open watches–with no technicians on duty–are all too frequent. Supervisors and managers frequently must make decisions on the priority to assign to restoring equipment outages and whether or not to use overtime to support the recalled technician.

The FAA faces a growing shortage of maintenance technicians. In fiscal year 1990, the FAA's field maintenance work force faces reduced staffing. This problem will become even more urgent in the coming years, because approximately 60 percent of the FAA's maintenance staff is eligible to retire by 1995. By the, we may face the ironic prospect of reaching a sufficient controller workforce, yet one that is incapable of operating to its maximum strength because of hardware repair and maintenance shortfalls.

Through it all, we remain interested and prepared to continue to work with the FAA, Congress, and other groups in keeping the nation's air traffic system the world's safest. As we have noted earlier, the FAA in recent months has instituted several promising initiatives that will improve the system. We trust that the Congress will continue to lend its full support to these important efforts.

This concludes my statement, Mr. Chairman. I will be happy to answer any questions you or members of the Subcommittee may have.

FMA

Federal Managers Association

July 28, 1989

The Honorable Guy V. Molinari
Chairman
Subcommittee on Investigation and
Oversight
House Public Works and Transportation
Committee
H2-585-89 House Office Building Annex II
Washington, D.C. 20515

Dear Mr. Molinari:

Please find enclosed the responses of Mike Connor to your questions growing out of the May 25 hearing of your subcommittee on the status of the air traffic control system.

Mike and the members of our staff remain available to be of assistance to you and the Subcommittee should further questions arise.

Thank you again for your interest and commitment to improving the quality of the air traffic control system.

Sincerely,

Bruce L. Moyer

Bruce L. Moyer
Legislative Counsel

encl

1000 16th Street NW Suite 701 Washington DC 20036 (202) 778-1500

ANSWERS OF MIKE CONNOR, FEDERAL MANAGERS ASSOCIATION, TO QUESTIONS SUBMITTED BY THE HONORABLE GUY V. MOLINARI (R-NY)

1. What is the solution to the chronic communications problem in the FAA? Can the problem be traced to individuals in the agency whose personality, training or attitude precludes effective cooperation?

I believe the FAA will experience continuing difficulty in communicating with the various levels of the organization. In some cases, communication problems are due to the lack of training or personality traits.

However, the paramount problem involves the culture of the air traffic service and the interaction, or lack thereof, between the critical organization segments. To date, the FAA and oversight bodies have engaged in little investigation to define critical problem areas, analyze systemic causes and propose corrective actions. The recent General Accounting Office report on air traffic working conditions represents a good starting point for this kind of effort. Each critical element should be investigated and pursued by a task force, composed of members from Congressional staff, FAA headquarters, NATCA, the Federal Managers Association and the General Accounting Office.

The solutions to FAA's communication problems are contained in the GAO data. We need to better analyze and evaluate the information in an empirical manner.

2. Do you agree with the GAO assessment that despite the facility managers' response, FAA headquarters has recognized the need for improvement and has planned or undertaken initiatives that will require time to bring about needed changes?

FAA headquarters recognizes many of the core problems concerning effectiveness and morale at air traffic facilities. How quickly and effectively FAA headquarters can respond depends on many factors. Communication and funding are two of them. With Admiral Busey's recent arrival as FAA Administrator, however, I believe the FAA possesses strong and competent leadership to willingly address the serious issues.

3. What happens with attitudes of controllers who become managers?

This subject is a rather curious paradox within the FAA. Facility managers express frustrations with systemic and resource limitations placed upon them. Throughout, they have a sincere desire to maintain a safe and efficient system. But their communication with controllers and first-level supervisors is limited.

Managers have a significant workload and, in an attempt to meet the organizational demands and pressure placed upon them, they drift away from contact with the control operation. Their focus becomes driven by the technical, monetary and macro-personnel issues they must deal with daily.

A facility manager may not have contact with a particular crew or individuals for weeks at a time. The manager is forced to rely on others for information about conditions in the facility. Once again, the quality and sufficiency of communications between management and controllers is at question.

At the same time, other questions arise. Are controllers reluctant to express their true feelings to management? Does the FAA foster frank discussions between all levels of management? Do mid-level managers alter or restrict the flow of information? These issues should be explored, for I think they have a significant impact upon the overall issue of controller attitudes.

4. Can you compare the attitudes of air traffic controllers toward managers with that of management-employee relations in other Federal agencies?

I am not sufficiently familiar with employee attitudes toward management at other agencies to draw a direct comparison. However, at FAA I have found controller personnel to lack familiarity with the overall functions of the FAA. An understanding of how the FAA works is not usually achieved until the mid-point of most controller careers.

5. Is FAA's Air Traffic Division unique among Federal agencies in management/organization structure? Is it more like the military than other civilian agencies?

Again, I am not sufficiently familiar with the management/organization structure of other Federal agencies to comment specifically. However, the attitudes and values of air traffic system personnel are different than other Federal employees. The nature of air traffic control work tends to create individuals who are goal-oriented and expect results within limited time frames. Unfortunately, a tendency to become frustrated is an outgrowth of these controller traits.

6. Based on the statistics from the GAO questionnaire, it would appear that overtime is no longer a problem Do you agree with this assessment? Is more overtime needed?

Overtime appears to be controlled and is being expanded at an appropriate level within the FAA. More overtime could be used to support training in both the classroom and operations level.

7. On page two of your testimony you state that "the challenge of increasing the number of FPL's and better controlling traffic flow are the foremost demands facing the FAA. Problems with workforce morale, working too long without a break, overtime and training are subsidiary components of these two larger issues." How can you separate these issues? Are they not interrelated?

My intent in identifying FPL growth and improved control of traffic flow was to elevate these two areas as paramount concerns. The other sub-issues which I identified bear an intertwined relationship to the resolution of the two foremost concerns.

8. Why is there no uniformity in selecting instructors?

Instructors participate in training in three distinct settings: at the FAA academy; at FAA facilities; and on-the-job training. Each function has unique problems, but one common trend is the quality of the training provided and the process of evaluation of these key individuals. An excellent controller may not be an excellent instructor.

9. To what extent do FAA facility managers restrict FPLs and/or supervisors from moving to another facility either by promotion or lateral when staffing shortages exist?

The recruitment and reassignment of supervisors and controllers to other facilities is a major problem area. This is due to several factors. First, Congressionally mandated staffing levels tend to restrict movement. Other restrictions are caused by insufficient numbers of FPL's to staff the facility, lack of funds, retirements, and a lesser number of talented individuals entering the air traffic service. The plain evidence is that there are simply not a sufficient number of experienced FPL's to go around.

Mr. **ANDERSON**. Our third panel includes the Honorable Robert Whittington, the Acting Administrator for the Federal Aviation Administration, accompanied by Mr. Herbert McLure, Associate Administrator for Human Resource Management, Mr. William Pollard, Associate Administrator for Air Traffic, and Mr. Keith Potts, Associate Administrator for Aviation Safety.

Mr. Whittington, I have you first; Mr. McLure, second; Mr. Pollard, third; Mr. Potts, fourth, but you can change that any way you want to.

TESTIMONY OF ROBERT WHITTINGTON, ACTING ADMINISTRATOR, FEDERAL AVIATION ADMINISTRATION, ACCOMPANIED BY HERBERT MCLURE, ASSOCIATE ADMINISTRATOR FOR HUMAN RESOURCE MANAGEMENT; WILLIAM POLLARD, ASSOCIATE ADMINISTRATOR FOR AIR TRAFFIC AND KEITH POTTS, ASSOCIATE ADMINISTRATOR FOR AVIATION SAFETY

Mr. **WHITTINGTON**. Thank you, Mr. Chairman, and members of the subcommittee. With your permission, I would like to submit my prepared statement and provide the subcommittee——

Mr. **ANDERSON**. Wait. I was just reminded. I have got to stand you up a second.

Please hold up your right hand.

(Witnesses sworn.)

Mr. **WHITTINGTON**. I welcome the opportunity to appear before the subcommittee today to discuss with you the status of the Air Traffic Control System. I would like to briefly address six issues of interest to the subcommittee today: staffing, work load, overtime, morale, air traffic controller training, and system safety.

These are the issues addressed in the GAO report. With Congress' encouragement and support, we have made substantial progress since the last GAO report in increasing not only the total number of air traffic controllers, but in increasing the number of full performance level controllers.

Our data shows that as of April 30, 1989, the controller work force totalled 16,464, including 9,689 full performance level controllers. We have also requested an additional 695 controller positions in the fiscal year 1990 budget.

To help us build up our controller work force with the best available people we have changed our recruitment system to reduce dramatically the time it takes to hire new controllers. Where it used to take us 18 months to hire a controller, we can now do it in 45 to 60 days.

We are able to hire the top-notch candidates who were too often unwilling to wait for us before. We have also worked to increase staffing at hard-to-fill locations.

We proposed a demonstration program at selected facilities that will allow us to offer up to an additional 20 percent of base pay to controllers and other safety-related workers.

We plan to implement this program in June. I would add that we have already begun to benefit from the demonstration project as employees have altered their plans in order to remain at or transfer to facilities that would be covered under our new program.

We remain sensitive to controller concerns about work load. To accommodate an increased work load, we have continued efforts to improve our flow control system to avoid too much traffic in one sector at a given time.

I do welcome the subcommittee and invite you to come up to the office and take a look at our flow control facility. I think it is superb, one of the best accomplishments in our Air Traffic Control System in a long time.

Since 1986, we have made considerable improvements in traffic management. In May of 1987, for example, the Aircraft Situation Display, ASD, became operational in our central flow control facility.

Our traffic managers can now monitor and oversee all IFR traffic in the 48 States with a goal of smoothing traffic and detecting the bottlenecks in the system. This has helped us tremendously to accommodate the increased workload, safely and smoothly.

We have also established for each of our 650 airspace sectors an operationally acceptable level of traffic. We made additional hardware and software improvements at all 20 enroute centers in 1988.

These improvements have allowed traffic management specialists to analyze demand at airports within their center's area, and to take appropriate action in advance of a problem occurring.

In March of 1988, a refurbished Central Flow Control Facility was opened here at headquarters to monitor alerts. Software enhancement became operational at that time. That provides traffic management specialists in the facility with alerts whenever a predetermined level of traffic is predicted in any one of the 650 center sectors.

The traffic management specialist, after receiving an alert, is now able to take action to avoid the traffic of a sector typically by re-routing key aircraft. During 1988, a 22 percent reduction in delays was realized at the 22 pacing airports.

Automatic demand resolution or ADR will be ready for testing in the late fall. When our system predicts a sector will be too busy using this program, the computer will provide the traffic management specialist with proposed ways of dealing with the expected traffic increase in ranking order of preference.

We have continued to try to reduce overtime. There are, however, some facilities where controllers are working more overtime than we would like, even though our data shows that nearly 69 percent of our controllers at centers and 74 percent of our controllers at terminals were not working any overtime during an average week in 1988, but averages and percentages, of course, don't tell the whole story because in 1988 Boston Center showed a 77 percent reduction in average overtime, while Indianapolis Center increased by 16 percent. Within a given facility, some areas may be working overtime, others may not. We have made general progress in driving down overtime.

We are not satisfied with where we are. As additional personnel are hired and trained and importantly if we are able to implement our pay demonstration program as proposed, we expect to achieve further improvements.

Meanwhile, we will continue to monitor the overtime situation to insure the controllers are not working excessive amounts.

Morale. Morale is a very difficult area to gauge. My discussions with FAA regional administrators and my visits and the visits of my associates here in Washington, to facilities throughout the country suggest to us, that overall the morale of our controller work force is good. We have heard different, although it varies from facility to facility, and it does not remain static over time.

We have taken various steps to improve the working environment for our controllers. We continue to seek the involvement of our controller work force in agency's decision making processes, and to improve the managerial structure in which they operate. I believe we have made considerable progress in those areas.

For example, we began to use an entirely new way to select our air traffic supervisors and managers allowing the controllers themselves to have a strong voice in determining who among them are the best candidates for these positions. Controllers helped develop this new method, which we call SIDP—supervisory aid and development program. NATCA has agreed to its use. Our experimental results were excellent, and we began to use SIDP nationwide this year. We hope that changes like this one will help narrow the gap in perception between controllers and their managers.

We also sought to measure the attitudes of FAA controllers through our own employee surveys. We use the job satisfaction survey—JSS—and a survey feedback action—SFA—program. The job satisfaction surveys of our air traffic controller work force indicate there has been a considerable improvement in controller job satisfaction since 1986. Overall, job satisfaction in air traffic in 1986 for center and tower controllers, was 57 percent and 60 percent respectively.

In our 1988 survey for these categories, job satisfaction increased to 66 percent and 71 percent. The JSS also shows improvement in levels of satisfaction with success of mission in air traffic: 1986—59 percent in the centers, 64 percent in the towers. In 1988—71 percent in centers and 71 percent in towers.

Improvement in levels of satisfaction with communications from supervisors in air traffic: In 1986 it was 63 percent in the centers and 84 percent in the towers. 1987 showed an increase to 70 percent in centers and 71 percent in our towers.

Now, this year we have also begun our survey feedback action program in order to give FAA supervisors and managers specific feedback from their own employees on how the work group and management are doing in their own facility or organization. Each supervisor and manager will work with their own work groups to address the specific problems identified in the survey. Our objective was to give every employee a chance to identify problems and also have a voice in correcting them.

To summarize, the feedback questionnaire results from air traffic control facilities were encouraging in many ways. They reflected that 74 percent of the center controllers and 75 percent of our tower controllers indicated supervisors communicated honestly and openly; seventy-nine percent of center controllers and 77 percent of tower controllers felt that they had received adequate training to do the job. Eighty-one percent of the center and tower controllers felt they were treated fairly regardless of age, sex or race.

We will make our survey results available to the subcommittee, and most importantly, I want the subcommittee to know that we are taking our employees' opinions seriously and we are not only seeking their opinions, but we are going to act on them. The GAO has allowed us to work with them to increase the usefulness of their survey and we will continue to work with them to understand the results.

FAA made a major commitment last August to upgrade its training process for air traffic controllers. In the past it has simply taken too long to train air traffic controllers up to the full performance level. On the job training has interrupted our operations and placed an added burden on controllers. Our training has been effective, but oftentimes not efficient. We are proceeding with efforts to integrate more dynamic simulation in our training processes with a view toward reducing the amount of actual on the job training time necessary for controller training and improving the quality of the training experience.

We instituted last August a new on the job training requirement which separates the instruction and evaluation function of controller on the job training to ensure a more objective process. A new OJT instructing course was developed and is being administered to a selected cadre of trainers, who will then teach air traffic controllers how to conduct OJT more effectively in the live environment. We are also developing an OJT evaluators course for our own controller personnel.

Furthermore, we are developing an automated training management system to be used in our air traffic controllers centers to provide us with up to date data on the training progress of developmental controllers. We are currently field testing this program and anticipate operational testing in the centers by the end of this fiscal year.

More needs to be done to update our training processes to ensure that we are providing the most efficient and highest quality training to our controllers. We are aggressively pursuing a variety of efforts to do just that.

Safety. The safety afforded by our air traffic control system remains high, and we are continuing to make hardware, software and personnel improvements. Overall, indicators suggest a positive trend in terms of runway incursions, reported near midair collisions and operational errors. We are diligently pursuing efforts to keep these trends headed downward.

We recently instituted a new approach to assessing safety. We have implemented a new review process which we call Systems Safety and Efficiency Review—SSER—that is used to conduct indepth analysis of selected portions of the National Airspace System. These reviews are conducted under the auspices of the Associated Administrator for Aviation Safety and use a wide variety of talent and expertise from both within and outside the FAA.

FAA representatives, assisted by representatives from industry and other government agencies, work together in an effort to examine and analyze issues that relate to the safety and efficiency of a specific location, such as Chicago O'Hare, and in a general area such as the Northeast Corridor.

In closing, Mr. Chairman, I want to assure you we will continue to work with the GAO on its recently completed survey, and I believe it provides us with additional viable data we can consider as we make further changes to improve the safety and efficiency of our Air Traffic Control System.

Our controllers, supervisors, and managers perceptions are extremely important to us and we will all benefit from the opportunity of having additional information available to us as to what those perceptions are. We remain committed to improving the air traffic control system and will continue to work closely with our work force as we do so. They are the key to our efforts on creating the best possible air traffic control system that will take us into the 21st century.

That completes my prepared statement, Mr. Chairman. We will be pleased to respond to any questions you have at this time.

Mr. ANDERSON. Thank you, Mr. Whittington.

I have a few questions here. The first ones are involving air traffic. I think perhaps I will direct them to Mr. Pollard, but it doesn't mean any one of you can't chime in and answer.

First, the National Transportation Safety Board—the NTSB—has completed an investigation at Coast TRACON and issued 11 safety recommendations to the Federal Aviation Administration concerning the inadequate size and poor physical condition of the control room, inadequate controller staffing, excessive use of overtime, pending implementation of two major air space projects, air space design and procedures.

This investigation determined that the FAA management was aware of these problems throughout the past three years and yet failed to address and correct them. The Safety Board has made similar conclusions following investigations at Chicago O'Hare, and in the Northeast corridor following the incident.

My first question is, why does it take public safety recommendations from them before the FAA will focus on and correct problems in the National Airspace and Air Traffic Control Systems?

Mr. POLLARD. Well, sir, to address the Coast TRACON specifically, there had been a lot of activity going on with our Western Region counterparts in trying to do something at the Coast facility. As you know, sir, that facility is located on a military base and we don't own that building. There are certain restrictions that we had as far as making improvements.

The staffing situation there has been one that has been known for quite a while as being inadequate. We have not had an opportunity and had really no programs to entice our controllers to go there. It is a high cost of living area. As the gentleman from Coast mentioned earlier, there is a lot of traffic. The traffic is increasing. Consequently, we think the pay demo will help us immensely in resolving the staffing problem.

The facility, I have not seen the facility personally. I do not debate at all the descriptions of the facility. We have a major cleanup, paintup, fix-up campaign going as it relates to the physical structure.

We are expanding the control room to allow for an expansion of the radar positions that are actually at Coast TRACON.

We have committed from headquarters—a quarter of a million dollars to put a temporary building at Coast TRACON so that we can move the break room and complete the expansion of the control room to give the controllers a better working environment.

In addition to that, as it relates to some of the other things that have been suggested we do have an initiative called The Southern California Terminal Approach Control program, which has to do with leveling of the air space, so to speak, giving common ceilings among the approach controls in that area that we had planned on implementing in July.

In addition to that, we were going to have an ARSA at John Wayne Airport that would increase the work load significantly at Coast. We made a decision approximately three months ago to defer that to at least September in that our deferral said no sooner than September. We plan to look at staffing in July or early August to see if that is still feasible. I think there has been a lot of activity prior to the NTSB recommendations.

The Chicago area that you mentioned—our own people found problems there that had been identified previously and the bottom line to your question is sometimes it takes that special emphasis for us to be able to fund those type projects and move ahead. It is not like any of the things identified by the NTSB were a total surprise to us. Because of the ultimate move into a new facility in that area, we just have not been able to make a lot of progress. I would be remiss probably if I didn't also mention, not with the current people involved, a concern for the management efforts.

Mr. **Anderson**. Thank you, Mr. Pollard.

This is my 21st year in Congress and I average about 43 trips a year to LA—to the West Coast and back. So when they gave me this morning's paper—and this was the Washington Post article about Los Angeles which is entitled "Hazards Seen in Los Angeles Air Travel."

> Skies over the Los Angeles area have become so congested and air traffic controllers are making so many errors that safety may be jeopardized, the National Transportation Safety Board warned yesterday in a 22 page letter.

And it tells all about it. You probably read it. I will be on the flight there tomorrow morning and I just hope that it is relatively safe.

What is the FAA going to do to correct the deficiencies and problems at Coast TRACON that were identified by the Safety Board?

Mr. **Pollard**. Well, sir, I mentioned earlier we do have some physical improvements planned there and we hope—in fact, we are already started those as far as improving the actual plant. We have the air space reviews that are going on that will cause some modification to the air space and it is not without added work load to the controllers at Coast, but hopefully it would make coordination procedures a little easier and a little more efficient.

Our ultimate plan is to consolidate the four approach controls in the Los Angeles area into a common facility and then build a new facility. Our western region is currently working now to identify where that might be sited. We have money in our '89 and '90 budgets, in fact, for the next several years, devoted to that so we can upgrade those facilities not only from a physical standpoint, but also from an equipment standpoint.

In the meantime—I mentioned earlier we delayed the implementation of ARSA effort to lessen the work load or at least the impact that was scheduled around July the 5th, and we are really putting a lot of our eggs in one basket. That is with the pay demo, we are going to be able to attract not just controllers to Coast but experienced controllers that will cut down on the length of time required to check out, which has been a concern of every panel this morning, this afternoon, and is a concern of ours.

Mr. **Anderson**. I think of landing at LAX; I naturally think of the air traffic controllers there at the tower. This comment in the paper was directed at Coast TRACON. How do they tie together in the control? Is Coast TRACON involved in what they are doing at the tower at LAX or are they separate?

Mr. **Pollard**. Well, sir, they are basically separate. It would be like in that area numerous pockets of air space, but as you refer to the Los Angeles tower at the Los Angeles airport, they are associated primarily and almost exclusively with the approach control that is located at Los Angeles.

Now, with the Coast TRACON, they have several other airports, John Wayne and Orange County and other airports that they actually control airplanes arriving and departing and some other flights. They do have coordination requirements with other adjacent facilities. But the tower basically at Los Angeles, the tower that you see really has no direct association with the Coast TRACON.

Mr. **Anderson**. Now, when will the facility—I suppose I am referring to the Coast TRACON facility—when will that facility be moved to a new site?

Mr. **Pollard**. Probably the earliest that would happen, as far as a physical relocation into the T-Labs, would be about four years from now, because it is a movement of not only them, but others. On the current schedule—and this is certainly not something that is locked in concrete, it is in planning—we would be talking about sometime in late '92 or early '93 as far as a move.

The facilities going into this new facility would be phased in rather than all of them moving in at one time.

Mr. **Anderson**. What is being done to increase the number of controllers?

Mr. **Pollard**. The key thing, as I mentioned, is actually the pay demo. It is not just training controllers once they get there. Getting controllers to Coast and to Los Angeles and those other sites has been our problem. It is not something, sir, that has just surfaced in the past year.

I think O'Hare is a classic example. For as long as I have been associated with air traffic and even known about O'Hare, there has been a staffing problem. We have had several things that we have tried internally and back even when PATCO was around, as far as enticing people to come, and they really haven't been successful.

We tried local hiring, which really doesn't attract the type of person we necessarily want, say, at Coast, or at O'Hare. You want more experienced people there because of the level of traffic and demand on the controller. We have tried several things in some areas to have like a farm system to put them in satellite areas, and quite honestly, that is probably what has enabled us to exist, although it wasn't necessarily a formalized program in the Coast area, in that they could draw from other facilities that are in the area.

But it is an extremely high cost of living area, and our system is such that controllers can make the same amount of money in a lesser cost of living area.

Mr. **Anderson**. Does the FAA plan to postpone implementation of the ARSA at John Wayne Airport?

Mr. **Pollard**. Yes sir. We announced approximately three weeks to a month ago that it would not be commissioned or implemented any sooner than September, and I would say my reaction is kind of sporadic at the moment, probably a 50-50 or 60-40 chance we would even do it then. It will be totally dependent on what the staffing is and how it improves between now and around the end of July or early August.

Mr. **Anderson**. So you don't have a date on that. My next part is, if so, what is the date?

Mr. **Pollard**. We have a September date now, sir. We are saying it will occur no sooner than that. Those dates, the reason we are not evasive but a little ambiguous about that, we have to tie those to a charting date as far as the charts that come out for the people that actually use our system. So if we don't do it then, we basically delay it for 56 days to the next charting date.

Mr. **Anderson**. Does the FAA plan to postpone transfer of sectors 21 and 22 from the LAX Center to Coast TRACON?

Mr. **Pollard**. No sir. We are currently planning on doing that effective July the 5th. That is in close coordination with the Western Region, the Air Traffic Division, and the facility management at Coast. There has been a lot of discussion on that and our current plan is to go ahead and do that.

Mr. **Anderson**. In July was it?

Mr. **Pollard**. July, yes sir. I believe July the 5th is the accurate date. I could find out here in a second, but our plan is to go ahead and do that. There will be some increased work load but after the training and initial workload we think there are some benefits to the system as far as the coordination and overall handling of air traffic.

Mr. **Anderson**. What will be done to address the problems relating to air space design and procedures in the training program?

Mr. **Pollard**. What we have done at Coast as it related first of all with the STAR program that you mentioned earlier and the realignment and reassignment of sectors from Los Angeles to Coast, there was kind of a review of the air space in general. The STAR program was basically a review of the Los Angeles air space.

We have had numerous reviews of the Los Angeles air space over the past several years, some prior to my ever coming into this job, as it related to the TCA at Los Angeles. The training at Coast, we currently have some site specific help that we are providing there using an equivalent to what we had at our Aeronautical Center. It is a computer called the VAX that enables us to do a lot more simulation; and we are using that, testing it at Coast, very positive reports at this stage.

It is a little early to draw a conclusion, but it is similar to what we would hope to be able to do in the entire system. What we need to do is reduce the training time, particularly the training time that has to be administered by another controller to a developmental controller through the use of simulation.

This is our first effort. We also provided some site specific training for Coast back several months ago to kind of get them over the hump with the backlog of developmentals.

Mr. **Anderson**. My next one, I think, might better be directed to Mr. Potts. What is being done to change or restructure the FAA's program for quality assurance and safety oversight of the Air Traffic Controller System so that it will be productive in identifying and correcting problems rather than reactive as it apparently is now to Safety Board recommendations?

Mr. **Potts**. There are several things that have happened in the past 11 months. First of all, our recent administrator, Mr. McArtor, created a whole new office of aviation safety, which has three main responsibilities.

The first responsibility was to do something we had already been doing and that is to gather statistical information, analyze that and develop an analytic program.

The second part of it was to have oversight over the operations procedures, rules and regulations at the headquarters level.

The third part of it was to develop a program that would have oversight over the evaluation programs of other organizations in six key areas in the FAA. Those six key areas were air traffic control, airways facilities, flight standards, airports, aircraft certification, and airport security.

The second part of that or a sub-part of that was to develop a program to take a very large look at the entire system. We call that the System Safety and Efficiency Review program, of which we have completed those types of studies at six locations in just about ten months, which, I think, is a good effort. For example, at Chicago, we had 55 participants up there for quite an extended period of time. New York, we had 61 people; Boston, 47. Washington Center, we just completed that particular aspect with 37 people.

In other words, we had about 200 people involved in a very intensive look at what is going on in the system. Now, that is what we are doing. I will be glad to expand on that if you want something further.

Mr. **Anderson**. Mr. Potts, could you describe the organizational changes in the FAA's Office of Aviation Safety to address the need for an independent quality assurance by the Safety Board?

Mr. **Potts**. Well, I report directly to the FAA Administrator. I do not report to any other sub-element such as the executive directors within the organization. Those programs that I just outlined are designed to do exactly that, to keep our finger on the pulse of what is happening in the system from an independent point of view continuously, all the time.

Mr. **Anderson**. Well, will this new organization be responsible for the quality assurance and safety oversight of the Air Traffic Control System?

Mr. POTTS. We do that in two different ways. The answer to that question is yes. We have oversight over the evaluation programs in air traffic.

I might add that air traffic has one of the most effective and outstanding quality assurance and evaluation programs of any government organization that I am aware of and certainly the best in the FAA.

As you are probably well aware, Former Secretary Burnley did transfer that whole function to my office shortly before he left. But we subsequently decided it would be better if I were in an oversight position with an independent view. So I have one whole division that works very closely with Mr. Pollard's organization to make sure that they are, in fact, doing their evaluations in the way they have their procedures set up for.

And the biggest problem that we saw in the old program was the follow-up, not the evaluation. They went out and did a real good job of identifying problems, but there was a lot to be desired in the follow-up.

So, I have instituted a tracking system within my organization, and we get—not only do we participate from an overview point of view in their evaluations, we get copies of their evaluations. We put in a computer each one of their recommendations and each one of their findings. We track those, and we issue a 30-day report to the air traffic people through their executive director with a report to the administrator in which we identify deficiencies, things that are not on track and not being followed up correctly.

There was a significant change in the way the quality assurance program is handled within the air traffic organization. It probably would be best to let Mr. Pollard explain that to you.

Mr. POLLARD. I will just take a couple seconds, sir. If I might just emphasize, the change we made—we are still somewhat in a transition. In the past, the evaluation of field facilities where it was a Level One Tower or New York facility or whatever it might be, for the most part, they were done under the auspices of a regional air traffic division of which we have one in each of our nine FAA regions.

Up until recently, the people doing those evaluations actually worked for the division manager, who was a common supervisor for both groups. We modified that starting really a couple years ago with one office, but now we are moving to four national field offices where we will do all evaluations.

Those offices report to our director for quality assurance within air traffic and their national field offices. The air traffic division managers and field managers get exit briefings, and copies of the reports but primarily work with key people, not only in the evaluation but in the follow-up. We have established an office within our organization to do the follow-up, plus we have added something we have never had before.

You were talking about us being reactive in our program. We are in the process of creating a systems improvement division that would be somewhat of—I hate to use the word "think tank," but in kind of a moderate sense, that would sit back and analyze this information, say here is a problem that is coming downstream. Let us fix it before it surfaces. We have really never had anything like that.

But basically, the bottom line is it is national evaluation process. The head of that office does report to me. It's still within air traffic, but it's done from a national level now. And we are very intent—and we have told our division managers and our field managers, and we will reemphasize that in our next meeting, which is in June, that exactly as to what Keith said, at the finding we did a great job.

In some cases, the follow-up was a little lax. We view that as a management problem rather than a quality assurance problem.

Mr. ANDERSON. How will this new organization assure that the Air Traffic Control System is being managed in a safe and efficient manner?

Mr. POLLARD. I think it would do two things along those lines. First of all, it would basically be like an outsider looking at the organization, and we will use ad hoc membership of people that have recent technical experience to go and do that evaluation.

I might also add here in our new approach, I should say, of doing business with NATCA, we will have NATCA present on a lot of these evaluations, and they will work with us.

In addition, we have a better follow-up process, and we will be able to develop national checklists to look at those critical items that are out in the system.

But the most important thing is, I think we have experienced evaluators that will be doing this and will be looking at it from a common basis as they move from facility to facility.

Mr. POTTS. If I might add just one thing to that, there is another aspect to this that ensures that what Mr. Pollard just described will happen. My office does have authority to conduct independent evaluations. In our review of what it is they are doing, if we find that we don't—we are not satisfied with it or we believe they are not doing the right thing, we will conduct our own evaluation of problem areas that are defined.

Mr. ANDERSON. What will be the staff resources assigned to conduct the quality assurance and safety oversight of the Air Traffic Control System?

Mr. POTTS. If that is a two-part question, one for Mr. Pollard, I will just speak to our side of it, which is the Office of Aviation Safety.

We started out less than—actually about 11 months ago now. We actually only had 29 people of which most of those were in the statistical area, and they existed before.

Really, I only had three people, myself, my secretary and a special assistant to start the program. We now have authorization for 71 people. We have on board 39 people, and we are working as fast as our paperwork within the bureaucracy will let us.

I have absolutely no problems with the resources. Mr. Whittington has seen to it that we have them. It is just a matter of getting people on board, and we did not wait until we got them on board.

We conducted those six reviews. We have already done one oversight review of the air traffic evaluation, and I might add, we have done one in the airways facility sector out in Seattle, which we haven't gotten the final reports for.

Mr. ANDERSON. You had 29; you now have 39. You can go up as high as 71. Is that enough to do the job?

Mr. POTTS. That will carry us through next year. We will in the future budget request ask for additional people. We intend to go—our long-term target is for approximately 134.

Mr. POLLARD. If I might just add to that, internally in FAA, as far as doing the evaluation in air traffic, we are looking at approximately 140 people. So when Mr. Potts is talking, he is talking about people that are going to be doing the oversight that are going to be looking at us to see if we are doing a good job, not only us but other personnel within FAA.

Mr. POTTS. The follow-up and tracking system has proved very effective. I am sure you are aware of our System Safety and Efficiency Review in Chicago, which identified 139 actions. Those were all identified late in October, early in November.

As of yesterday, 137 of those, 98.56 percent, have been completed. The only one of significance that has not is a whole new remote air ground communication site in Ohio, which we had to get equipment and get the money. Telephone lines are in. The facility should be on the air at the end of this month, the end of May.

So the follow-up process that we are involved in now is extremely effective.

Mr. ANDERSON. Mr. Molinari.

Mr. MOLINARI. I was pleased to see the television, the last television camera leave the room. There is nobody left at the press table, I think, so what I am about to say is somewhat critical, to say the least.

Whenever I have criticized FAA in the past, your public relations people are quick to say the Congressman is anxious to get his name in print, trying to be a hero with the people. Indeed there are some of us that are deeply concerned about the Air Traffic Control System and the lack of progress.

Mr. Whittington, I have listened to your statement and those of your colleagues. I must say that all it means to me is the same kind of thing we have heard before, the same thing we hear year after year after year, and that is precisely why I asked for this study to be done by the General Accounting Office.

And what do we receive? We receive an in-depth report that took a long time to put together that says, in effect, nothing has changed. Now, you can go on—you, sir, were there at Boston Center with myself a couple years ago for two, two-and-a-half hours. We heard the people at Boston Center tell us how terrible it was. They were there dragging their legs. There were downtrodden, good bunch of people who needed a lift and needed it badly.

I left that center saying that is a troubled facility. If we don't do something, we are going to have a problem, and when we have a problem, then all of us are going to share in that blame.

When you turn around and say that the morale issue overall is good, I can't buy that at all. When 43 percent of the reporting controllers say the morale, their morale is low, you have a problem. We are never going to be able to address that problem until you recognize in fact it exists, but you don't recognize it.

You will cite surveys and studies saying 90 percent of the people say they like their job. That is a hell of a big difference than saying that morale is good or not good. Look at your own Keith Potts, your system safety and efficiency review in the northeast corridor; on the issue of morale, at Boston Center, description, "air traffic control specialists, staff members and supervisors at the Boston Air Route Traffic Control Center were asked by some team members to subjectively assess facility morale. The majority of those interviewed expressed the view that morale was very low and that improvement was required."

The same reference to the New York TRACON and the Air Route Traffic Control Center; description, "morale within the air traffic facility is very important because it permeates the activities of all individuals within a facility and has a striking effect on productivity."

At both the terminal radar approach control and the New York Air Route Traffic Control Center facility, employees at many levels report that morale was extremely low. Now, you say, well, we are talking about overall.

Let us take a look at Pheonix TRACON. Sixty-nine percent indicate low morale.

Take a look at Washington Center. You heard it before. Sixty-eight percent. This is across the board at all of the busy centers, and yet we come back three years later, we do a new study, and we see more of the same.

We talked about reactive. I guess I am just expressing a heavy dose of frustration as somebody who has been trying to address this problem maybe more than any other problem, because I think it is a very serious one.

And maybe I am getting to the conclusion in my congressional career; I felt if I could make a contribution in air traffic control centers, one area I could do it was to make the people—they are good people. You have put a lot of good people on line. They love their jobs.

They are a special breed, but they don't appreciate the working environment. It is a tough environment. I have been in some of those centers with bad weather, heavy traffic, and I watch the controllers, and I see their legs drumming, and I see the pressure they are operating under, and I say, what does it take? Is it going to take crashes?

We have some of you FAA officials testify that yes, the crash in Cerritos caused us to accelerate the installation of mandated transponders; and the crash down at Dallas caused us to accelerate air traffic weather problems, things of that nature.

But for God sakes, it is time we stopped talking about these things. If you look at what management is saying here today and what GAO—not a union; they have nothing to do with it—what GAO is doing is an independent objective analysis are saying totally two different things. We are never closing that gap.

So, I guess the first question I should ask you is why do you still give the party line when you get up there? I guess maybe I am being naive. Maybe I expect somebody some day to get up there and say, we failed in our mission. We are not doing what we should have done, and we have made mistakes and serious mistakes, and now we are going to redo things; and for once, the people at our facilities are in trouble and need some help.

Maybe that is expecting too much of you. Maybe you cannot say it. Maybe you cannot say it. Maybe if you said it, you would find yourself tanning hide some place. But I would like to ask you, let us really address the problem.

Bob, you and I were there at Boston Center. It was a good exercise. I think a lot of people learned from it. I felt good. I tell you what. Why don't you and I go to Chicago Center? I haven't been there yet.

We heard Ken Mead say before two or three weeks from now he will have the breakdown of Chicago Center from that study. Can you reach an agreement with me and with the Chairman that as soon as that information is available, we will go and maybe have you come with us to Chicago Center? We were supposed to go last year, Jim Burnley, Adam McCarthy and anyone else who wanted to go from the subcommittee. That was cancelled in September.

I don't know why we never made the trip. I think it is time we did that together. Let's get a couple hundred people to go like we did in Boston. Let's get people to go like we did in Boston. It is not the General Accounting Office, not the people in the surveys, it is the people themselves.

I am sure, Bob, when you were there at Boston Center, you couldn't walk away thinking the morale at that place was good. You couldn't walk away with any other impression than morale was bad, and that is the same experience I have had at so many other facilities. What are you going to do about it?

Mr. WHITTINGTON. Let me start with I think you have made a heck of a contribution to the Air Traffic Control System.

Mr. MOLINARI. Nothing has happened.

Mr. WHITTINGTON. I really did appreciate being at the Boston Center with you. I am very fond of that facility myself and glad that we had a Boston controller here today. Yes, I can say whatever I want. It is not a party line, or maybe it is. I do recognize that we have some problems. I appreciate what the GAO has done. I spent some time with Ken Meade and his staff and, of course, I have Herb McLure, who made the report previously on the air traffic control situation.

We haven't really talked about our own survey, but we have some data that is a bit different. What I want to do is take both reports and put them together and certainly address the facilities that we can identify where some action needs to be done. The reports that we will be getting from our employees about their managers is something new to us and certainly ought to be very useful where we can actually identify. Of course, something needs to be done.

I would like the employees and managers to work together on an action plan. I look for a lot of good things from that program. Yes, we do have to get out there and address these issues because our controllers are a young group, energetic, highly educated, and I am really extremely proud of them.

I mentioned to you I really felt good the other day being an ex-controller signing that NATCA contract. Because I am very pleased with Steve Bell and his people and the relationship that we have formed. Listening to their testimony about the relationship with

Washington being a little different from the field managers, that bothers me. I am going to look into that.

Bill Pollard is meeting with all the air traffic managers next month. We have asked the GAO to come down and make that report to them so they can hear what people, what the GAO, is saying about the differences, their perceptions versus our controllers, because they are all a good family.

I like our managers, too, and our supervisors are very pleased to have the FMA here at the table also. It is a good group, Congressman, but you have got to listen. When you hear something you don't like, then you have got to get moving. That is what I believe in doing. I have tried to do that in the different roles I have been in with the FAA for a long period of time.

I think the message is out there, and certainly I feel we have the resources, both money and people, to get this job done. I certainly don't want you to ever think I would be defensive on an issue like this. I am not, and I know my colleagues are not. We want to do well. We have brought in the very top people, the managers from the regions, to head up the Washington office. We have all been out there. We know what they are talking about.

I want to work with you and this subcommittee and our work force and make it the best there is, because there are a lot of opportunities in the FAA, tremendous challenges, though. You won't make it by yourself. I realize that.

Mr. MOLINARI. But, Bob, getting back to my trip to Boston Center, you were there. You sat and listened for two, two-and-a-half hours. You took notes. I remember when I turned around to you and said, "What comments do you have?" And you said, "I have taken notes, and we are going to take a look at this and see what we can do."

Whatever happened at Boston Center? Were changes made? Are things better there?

Mr. WHITTINGTON. Well, the report indicates the morale problem. The representative here indicated staffing problems. At the time we were there I recall was just after they had transferred the sectors from New York to Boston, a rather traumatic time for that facility. It really put a lot of traffic up there that they simply were not used to having. We had New York controllers fortunately detailed up there to assist in that transition.

Over time Boston Center was probably the highest over-time facility in the country at that time, but that was just natural. You had to do that because of all the training and the details. Last year, as was indicated, it was the lowest over-time facility in the air traffic control system. So there is a balancing out, but I don't like to hear anything bad about my facility up in Boston. I feel very closely attached to those people. I am going to take a look at that. I will go back up there very soon, I can assure you of that.

Mr. MOLINARI. I don't mean to suggest that it is just Boston Center. It just happens you and I were there together so we both witnessed the same feelings expressed not only by controllers but by airway systems specialists. There is deep concern expressed by the controllers as to what is going to happen. With the large amount of people that are going to be retiring in that work force, the technicians—somebody pointed out in their testimony—and I thought it was really right on target—here we are concentrating and the area of concentration, developing a controller work force, and strangely enough, I don't recall whose statement it was but—Mike Connor's statement—he pointed out in his testimony that what could well happen is in a few years we may have rebuilt the controller work force to where it needs to be and then have no technicians around to be able to repair the equipment to let them do their job.

You are shoring up one end and the other end is falling apart. That is something that we witnessed. You guys didn't hire anybody for years. I couldn't understand it. I went to the facilities, and I talked to the airway systems specialists, and they kept saying, "We can't handle it. We have nobody on duty to repair certain equipment if it goes down."

For years there was nobody hired. You say why? I said, well they are probably looking at privatization. In fact, they did try that, and a year or two later they said it didn't work, but it takes three to five years to train those people to take those assignments. I am mystified at what we are doing.

Mr. WHITTINGTON. I think that is really a big challenge also when you look at what is needed in the technician work force. That is a lot of competition for the types of people we will be needing as we transition into the NAS system.

And the training that is required, you bring people in, you have got an old system, a new system. That is a tremendous challenge, and I think our recruitment program will address that, and certainly Herb hasn't talked about all the training initiatives we have, but when you take a look at morale, all these different things, if I were to put down what is the biggest priority to solve all these problems, I will get right back to training, a good training program, whether it be in human relations, technical training, or what. We are fully committed, I think, for the first time as a management team to address that issue.

If we get short on money, let's don't stop the training, the human relations and the programs like that. In coming down here to Washington, I am prouder of that accomplishment, getting Herb on board and setting a sense of direction to all the new types of training that this agency needs to be in. We are so far behind the curve that we just simply have to catch up, and we are all committed to do that.

Mr. MOLINARI. I am pleased to hear that. Let me ask you why did the FAA revoke the aviation system indicator contract with the FU Associates and Flight Safety Foundation?

Mr. WHITTINGTON. I will let Keith answer that. That was in his office.

Mr. POTTS. As Mr. Wood from the Safety Foundation indicated this morning, a company called FU Associates was the prime contractor of which the Flight Safety Foundation was a subcontractor. They had originally a six-month contract which had a provision in it that if the fund were not available in the fiscal year 1989, the contract would be canceled. The funds that were to be made available were $2.3 million. The agency made a decision that that money was not available, so the contract was canceled strictly because of funding, as Mr. Wood said.

They did do about 500,000 plus or minus a couple of bucks work in a literature search for us which turned out to be very valuable. They identified a lot of issues which otherwise would not have been available to us. I took that information along with other information and created a Safety Indicators Division within my office which has as its job to develop those indicators.

One of the things that was mentioned this morning, that is an in-house effort. That is not true. We are going to manage the program from within the FAA, and we are using industry. In fact, just a few weeks ago, we held our first workshop with industry. We had about 65 people there from all of the aviation organizations that reside here in Washington plus NASA and many others. We were soliciting from them methods which we can develop a safety indicators program.

One of the things that they cautioned us on is to be aware that you will never find indicators that will predict individual events. You can predict a range of things and you can predict trends that need attention. That is what we are after.

In addition to that, I created a new organization called the National Aviation Safety Data Center. Within the FAA, there are 61 data bases that have very vital safety information that could be used in this kind of a program. At the present time they are owned by about 23 different organizations within the FAA. The administrator has now signed an order giving our office total access to those data bases, and we will not only use the data, we will provide some services.

Within our organization we have some automation capability. We have got a couple of Ph.D.'s that know a lot about data systems, and they are going to assist those organizations in making sure they have good data, helping them to determine better ways to collect it and better ways to be able to retrieve it in an orderly fashion to develop an indicators program.

So we are doing a lot of things. At the present time while we are waiting for comments we gave, until next month about mid-June, the users' time to develop their thoughts and get some things to us in writing. We will hold another workshop in August in which we will have put those comments together. We will get these folks back, and we are going to go from there. We will expect we will have a very detailed plan which we will be more than pleased to share with you and give you a briefing probably early fall.

Mr. MOLINARI. Keith, everything you say is good, and I am pleased to hear it. But the one thing you have to recognize is the fact that there has been a very serious credibility problem with FAA over the years over system indicators safety. So recognizing—that is an absolute fact. There have been statements, great controversies, over it, and my concern is no matter how good a job you do and no matter how functional it is and efficient, there are going to be people who are going to raise questions, since it is done internally, as to whether it is not some more games playing because we have seen some of that unfortunately in the past.

So it seems to me that you would be better served as an institution to have somebody on the outside working with you so that it is their recommendations so that when you come down the pike, the public at large, including Members of Congress, are going to be more readily accepting of those recommendations.

The money we have talked about, at least to me, doesn't seem to be that substantial. But you know your budget better than I do. But the budget has to be related also to your performance and the recognition of the job that you are doing and attempting to do.

So I have great concern for the fact that you are doing it internally, not that you don't have the capabilities, but the fact is that if it were done on the outside, I think we would all, the universe would be all willing to accept it as saying this is good. It has been done from the outside. They are willing to implement it. We are moving forward finally.

Let me ask you this: What is the progress of FAA in meeting the fiscal year 1989 goal of 10,832 FPLs? The second part of that question would be, why has FAA requested waivers for meeting FPL goals for the last two years?

Mr. POLLARD. To answer the second question first, we have requested a waiver because we haven't been able to meet them. We just couldn't generate that many FPLs. What we are looking at this year, aside from the waiver that may be even at the subcommittee already, is anticipating somewhere around 10,300 FPLs at the end of 1989 rather than 10,800. We explained in our waiver quite honestly that we could make 10,800, but we think the way we could do that would be something we wouldn't want to do, and you would be critical of, and that is to permit our controllers to progress from a lower level facility to a higher level.

So, consequently, if we promote a controller out of the Indianapolis Tower to go to O'Hare, if I did 20 of those, people would say that is really good. You are staffing O'Hare. The next thing I would have to tell you is our FPL number went down by 20 because they lost that FPL category for a period of time before they retrain.

Mr. MOLINARI. May I stop you there for a moment?

Mr. POLLARD. Sure.

Mr. MOLINARI. You are saying you could do it, but what you would be doing is something we wouldn't like. You are right. The fact is there have been charges made by controllers throughout the country that that is a practice that has occurred in the past, that people have been pushed too fast in order to try to meet those staffing goals.

Would you admit that in fact has occurred throughout the system in some areas?

Mr. POLLARD. No, sir, not in the category. I just could not agree with that. Obviously, every person that is trained may not be trained to the level that others would expect, but I think our training program still is sound. We still loose approximately 40 percent of our people at the Aeronautical Center so that doesn't indicate there is any weakness there, and we still lose anywhere from eight to 12 percent once they get into the facilities for training. There has not been a concerted effort, and we have never actually said "Promote to meet a FPL goal."

Now, some of our employees think that we are probably doing that, but it is my position that I would rather take the heat from you and the other committees and even the public in this case and have our people where we need them the most. We can't do that and to meet a number. As long as we can get those waivers, I think that is proper management of the system.

The other thing, you commented earlier, sir, in some of the testimony about the drop in FPLs, and I believe the number you had was 9,658. Actually I think in January of 1989, it even went down to 9,500. I don't want to appear defensive on that at all. I just want to give you a very factual statement. That is something that happens to us every year. September, which is the end of our fiscal year, the numbers are higher. Right at the beginning of the fiscal year we have some dollars available to move these people from one level facility to another that maybe we haven't had, or right at the end of the year sometimes we may have some dollars, which we can put into permanent change of station, and we lose anywhere from 200 to 400 people from the FPL number.

So we went down as low as 9,500, and we are back up now approaching 9,800 FPLs in the system, and we are anticipating by the end of September having about 10,300. We missed last year's goal by about 500, and that has carried through this year. We have not been able to make up any of that loss.

Mr. MOLINARI. It has been brought to my attention your testimony says as of April 30, 1989, there were 9,689 full performance level controllers.

Mr. POLLARD. That is correct, sir.

Mr. MOLINARI. The statement I quoted from before was over a seven-month period, not a one or two-month period, you had a net loss of 169. These were figures that were furnished by FAA to us.

Mr. POLLARD. Yes, sir. That is correct. The only thing I was trying to point out, I can't remember which date you actually used, but, for instance, we ended up September of '88 with 9,858 controllers, which is the number you were referring to. We ended up October with 9,600, and we ended up January of this year with 9,557. So we were on a downward trend for some five months or so, and we just started to come back up with an increase in February, back toward to April, and then May we will see an increase working back toward the 10,300 by the end of the year, and then come October we will probably be back down to around 10,100 because we will have retirements and people that move out of the FPL status.

Mr. MOLINARI. Let's get into that for a moment for the record. I would like to have your assessment on how many controllers and how many supervisors you anticipate retiring before this fiscal year is out.

Mr. POLLARD. This will be somewhat of a semi-educated guess, sir, because there are some things that our people are really watching, and I am sure you and the Chairman are very aware of the lump sum payout modifications, and most of our people now feel like that at least will be carried through one more year at the 60/40 or maybe back to the 100 percent. We probably would lose, just in air traffic alone, probably as many as 1,500 people if they thought that that option was going to go away. It is kind of a nuisance that we have been watching very closely.

FAA would lose a lot more. The past several years, in 1987, we had 450 people that retired out of the controller and supervisory work force in the centers and towers. Then in 1988, we had 409, and we are anticipating, unless something really unusual happens, like I have described, approximately 400 people that would at least retire this year, this fiscal year, FY '89.

So in our hiring and our staffing academy plan, this attrition is based on that number and attrition at the Aeronautical Center and attrition at the facilities, and we can replace that on a one-for-one number and in some cases make the necessary gains as far as the end of year employment.

But what we have lost is a 15 to 25-year-experienced controller and replaced, in some cases before they enter our account system, by a GS–9, who just reported to a facility.

Mr. **MOLINARI**. You don't agree then with the GAO report on anticipated—what the controllers and supervisors say—percentage as to those who anticipated retiring in the next two years?

Mr. **POLLARD**. Well, sir, without having their specific data in front of me, I do recall the one question as it was related. They said are you eligible to retire in the next two years? And there were 500 or so people that responded yes to that question. Then out of that I think 38 percent or 39 percent of them said they would retire, which would be approximately 200 of those people saying that they would retire.

I don't disagree with it. Obviously it is a valid survey, and it is the opinion of the people. I don't think that would necessarily differ too much from our numbers, though. It may differ 20 to 30 people.

Mr. **MCLURE**. Can I add to that?

Mr. **MOLINARI**. Sure.

Mr. **MCLURE**. In the '85 GAO survey and '86 hearing, the same kind of question came up. There was some question about the accuracy of FAA's projections and the GAO people went back and checked with FAA to see how the projections were done and how accurate they were. As a matter of fact, it turned out their projections were very well done and were quite accurate.

Mr. **MOLINARI**. Let me ask you this then. How many facilities do you anticipate will have less than 75 percent of the FPL work force?

Mr. **POLLARD**. I can't give you a percentage. I can tell you that it will be a substantial number. We have a mandate that we have had for several years to have—this is a term that is debatable by a lot of people, at least 70 percent of our level three radar facilities and our enroute facility, 70 percent of the work force operational controllers, and we can meet that, but I am not trying to mislead you at all. That is not a FPL. That is an operational controller that is checked out on at least two positions. Seventy-five percent FPLs would be a significant number at our facility, at least the larger facilities will not be at that level.

Mr. **MOLINARI**. Mr. McLure, welcome back. You are on the other side of the table.

Mr. **MCLURE**. It is quite different.

Mr. **MOLINARI**. It is good to have you back. Three years ago, when you were with GAO, you took the same kind of data that GAO was showing us today and recommended that FAA restrict air traffic. What do you think about that option today?

Mr. **MCLURE**. Well, at the time I didn't know nearly as much about FAA as I do now.

Mr. **Molinari**. He has been trained very well, Bob.

Mr. **McLure**. Bill just pointed out he doesn't think I know a whole lot right now. At the time when I stated that I thought some restriction on traffic may be warranted, we were talking about a carefully tailored restriction that really models what FAA presently does with flow control.

I think FAA is very conscious of work load and the density of aircraft and sectors around the country, and I do believe that the flow control system is a good way to handle that most of the time. I also believe that the individual air traffic controllers are responsible for understanding themselves how much traffic is too much, and I believe we pointed that out as one of the rules the controllers are to follow.

I think there is a lot of pressure on them occasionally, though, to accept more traffic than they should, and I was very interested in Mike Connor's testimony that they had specifically asked the air traffic controllers not to accept more than they felt comfortable handling.

Mr. **Molinari**. One question I would like to ask of you: We have a unique opportunity because you were on the other side during the last study and now you are with FAA. What is your reaction to the new study from GAO? You had a large part in the last one, and what we are seeing now basically is pretty much the same kind of report, almost identical.

I guess if there is any real significance to the report, and I think there is a lot, but the one that jumps out is the similarity between the two reports. It is almost identical. What is your reaction? You have had access to that report the last day or two, I assume.

Mr. **McLure**. Yes.

Mr. **Molinari**. I would be very anxious to hear what you had to say about it.

Mr. **McLure**. I think the report, itself, was very well done and the generalizations made from the data were very carefully characterized, and I believe obviously that the data is very good because I know what the sampling plan was. I know the procedures GAO follows. And I think the data is quite good.

I think the data will be even more useful to FAA as we get it disaggregated; that is, facility-by-facility. I was—I do want to mention here that the work FAA does in its surveys is equally as good as GAO's. The surveys are carefully done and are statistically valid and the questions are carefully crafted as GAO's questions are.

They are different questions, but I think it is not fair to characterize, for example, FAA's job satisfaction survey as simply asking people whether they are satisfied in their jobs. I would like to—I have the survey instrument with me, and I would like to mention to you some of the kinds of questions that are asked in that. It is, does your supervisor actively involve you in establishing goals for your work? Does your supervisor communicate freely and frankly all information which is relevant and of value to you?

Does your supervisor try to understand your point of view. Does your supervisor know the technical parts of his or her job? Does your supervisor have good interpersonal skills. Does your supervisor do a good job of balancing concerns for employees with concerns for getting the job done?

That is quite a bit different than asking an air traffic controller whether their morale is good. I think the FAA survey is quite a credible instrument, and the objective information in the GAO survey combined with the objective information in the FAA survey will be very useful.

Now, the thing we learn in FAA from the survey instrument we use and the thing that GAO is going to see as they disaggregate their data and what GAO learned in the last survey is that there is considerable variation around the system.

This is the third iteration of FAA's survey. On the second iteration of the FAA survey, what FAA did was to target some specific facilities that the survey identified as having particular problems, and FAA went into those facilities with a team of people to help the management and the facilities try to do better in the areas identified by the employees.

That worked out very well, and those facilities in our third iteration of the survey did show marked improvement in each case. What we have done as a result of what we learned in that process is sharpen our own survey capability so that now we have two surveys. In addition to the job satisfaction survey we use an instrument called the survey feedback action.

That program is designed to target specific work groups, and the reason I bring this up is because one of GAO's large concerns and one of my personal concerns, one of the reasons I came over here was to get at this communication difficulty that apparently exists between management and supervisors and controllers.

What the survey feedback action program does is ask individual work groups (that would be the group of controllers, for example, that works a particular sector with a particular supervisor), it asks them a series of 37 questions about how the supervisor and the work group work together to do their jobs. Those questions are pointed at specific communications kinds of issues as well as some resource issues and others.

Each supervisor then gets the feedback from that survey. Once they get the feedback they meet with the employees to discuss the feedback and to develop an action plan targeted specifically at the things the employees themselves identified as problems.

Each supervisor then has to prepare the action plan, share that action plan with his or her supervisor, and through the system every work group in FAA, not only in air traffic control, but every other work force, will have these individual action plans that should help them work against the problems they have identified.

Now that does a couple of things for us. One is it solves particular problems or at least it is a step towards solving the particular problems. The other thing it does is model for the managers. It shows the managers how to interact with their work group in a constructive way to get feedback from that work group and to try to develop themselves as a supervisor or manager and to improve that communication flow that these surveys seem to identify. I think it is a really important thing for us to do.

Mr. MOLINARI. Very important. Let me ask you this: Will this identify facility managers that should be replaced?

Mr. MCLURE. Not necessarily. It will identify facility managers where the people in the facility are very unhappy or unhappy with the particular things that survey instrument identifies. One of the things we learned in the last iteration of the job satisfaction survey where we gave specific help to individual units was that employees are very unhappy in some organizations, some units that had very good management, but where the communication wasn't what it could be.

But as those managers used that information and then worked effectively with their employees. Things got a lot better, and in fact I talked to a small group of those managers and supervisors out in Los Angeles last fall, and to a person they said, you know, we didn't have—we didn't understand how to work effectively with our work groups, but once we knew how to do that, then the whole thing worked really well for us. And what we have tried to do is replicate that across the system through our survey feedback action program.

Mr. **Molinari**. One last question: In the press release of April 4, 1989, talking about the new survey that was conducted. It starts off by saying a new survey of Federal Aviation Administration employees found a sharp increase in overall job satisfaction compared to previous surveys.

GAO in their study, which you have said was done in a proper manner, the methodology was correct and what not, shows quite the contrary. How do you reconcile those two?

Mr. **McLure**. I don't know exactly how to reconcile them. As I mentioned to you, the kinds of questions we asked in our job satisfaction survey were quite different than the kind GAO asked. GAO asked many more technical questions of air traffic controllers about how they do their job and what kind of things they are experiencing on their job.

The questions about morale were a bit different than that, and not, in my opinion, nearly as extensive as the questions that we asked our work forces in our job satisfaction survey. What I really need to do is take the information that is available in the GAO survey, in our job satisfaction survey, and through the survey feedback action process and try to measure the three so that I can combine the technical aspects with the more morale-oriented kinds of questions that are available.

I would observe that GAO's characterization of a marginal increase and FAA's characterization of a sharp increase in some cases are fairly similar. That is where our overall survey results went up about 10 percent. We view that as a sharp increase. Where GAO saw increases of 3 percent to 7 percent, they regarded that as marginal.

Mr. **Molinari**. I have to leave shortly to take that Thursday afternoon flight to Newark that Steve Bell warned me about, but let me just conclude with two observations, suggestions.

Number one, I don't think, Bob Whittington, you answered my question as to whether we can set a date to go to Chicago Center as soon as that information is forthcoming from GAO and the breakdown of the statistical data for Chicago Center.

Mr. **Whittington**. We certainly can. I cannot commit Admiral Busey, but I am willing to go any time.

Mr. **Molinari**. I would love to have you there. If he can't make it, fine. Mr. Skinner knows the area well. We might want to ask him to come along on that trip. I think it is a very good learning process.

Herb, getting back to you, I think it would be very healthy for us and for the work that this subcommittee is trying to perform if we could ask you and your working group to meet with the General Accounting Office and review each other's data and see if we can't come up with some kind of a consensus between the two working groups as to what really is out there and assist them.

I think that would help us enormously.

Mr. McLURE. We would like to do that very much. In fact, what we hope to do is target some individual facilities so that GAO can go along with us as we try to do further targeted work at those facilities so that they can understand more about the specifics their questions in their survey work, the specific kinds of solutions that might work with those questions.

I think they should see that response in action. I do agree with GAO that FAA's response to the 1985 survey was not what it could have been, and we hope to use this information much more constructively.

Mr. MOLINARI. Great. I am happy to hear that. Mr. Chairman, I have other questions I would like to ask, but I do have a time problem. I would like to ask you, if you would, to keep the record open for a week so that myself and other members of the subcommittee could submit questions to any of the panelists.

Mr. ANDERSON. We will keep the record open. I am glad you had a plane to catch. We would have been here all night. Mr. Whittington, thank you very much, you and your panel.

We are all thorough now. I thought it was going to be much shorter than this. Here it is 9:30 to after 4 o'clock. Thank you very much. I thought it was a very good hearing.

Mr. WHITTINGTON. Thank you, Mr. Anderson.

[Whereupon, at 4:05 p.m., the subcommittee was adjourned, subject to the call of the Chair.]

[Mr. Whittington's prepared statement follows:]

STATEMENT OF ROBERT E. WHITTINGTON, ACTING ADMINISTRATOR, FEDERAL AVIATION ADMINISTRATION, BEFORE THE HOUSE COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION, SUBCOMMITTEE ON INVESTIGATIONS AND OVERSIGHT, CONCERNING THE STATUS OF THE AIR TRAFFIC CONTROL SYSTEM. MAY 25, 1989.

Mr. Chairman and Members of the Subcommittee:

I welcome the opportunity to appear before the Subcommittee today to discuss with you the status of the air traffic control system. Accompanying me today are: William Pollard, Associate Administrator for Air Traffic, Herbert McLure, Associate Administrator for Human Resource Management, and B. Keith Potts, Associate Administrator for Aviation Safety.

In 1986, following a General Accounting Office survey of the air traffic control system, FAA representatives appeared before this Subcomittee to discuss the status of the air traffic control system at that time. Recently, the GAO completed a new survey of FAA's air traffic control workforce, using the same approach that was used in its prior report. Primary areas of focus in that report, and of interest to the Subcommittee, include: staffing, work load, overtime, morale, air traffic controller training, and system safety. I would like to respond briefly to each of these areas.

STAFFING

With Congress' encouragement and support, we have made substantial progress since the last GAO report in increasing not only the total number of air traffic controllers but in increasing the number of full performance level controllers. Our data shows that, as of April 30, 1989, the controller workforce totaled 16,464, including 9,689 full performance level controllers. We are continuing our efforts to increase the total controller workforce, and have requested an additional 695 controller positions in the Fiscal Year 1990 budget.

To help us build up our controller workforce with the best available people, we have changed our recruitment system to reduce dramatically the time it takes to hire new controllers. The Office of Personnel Management has granted us authority to test and rate controller applicants, and we also have worked with the FBI to find a much quicker way to obtain security clearances for controller applicants. Where it used to take us 18 months to hire a controller, we can now do it in 45-60 days, and we are able to hire top candidates who were too often unwilling to wait for us before.

We have also worked to increase staffing at hard-to-fill locations, where costs, climate, work complexity or a combination of these factors have traditionally made it difficult to attract and retain controllers. We have proposed a demonstration program at selected facilities that will allow us to offer up to an additional 20% of base pay to controllers and other safety-related workers. We are convinced the pay demonstration is needed and plan to implement it in June.

I would add that we have already begun to benefit from the demonstration project as employees have altered their plans in order to remain at or transfer to facilities that would be covered under the program.

WORK LOAD

We remain sensitive to controller concerns about work load. We have continued to see an increase in air traffic throughout this decade. This past calendar year, we handled 35,678,046 operations, up from 33,651,904 in 1986. To accommodate this increased work load, we have continued efforts to improve our flow control system to avoid too much traffic in any one sector at a given time.

Since 1986, we have made considerable improvements in traffic management. In May 1987, for example, the Aircraft Situation Display (ASD) became operational in our Central Flow Control Facility (CFCF). This provides our traffic managers in CFCF the capability to monitor and oversee all IFR aircraft in the 48 states with the goal of smoothing traffic and detecting bottlenecks in the system. Further, this system has given us added ability to assess the potential demand on our busiest airports. This system has been instrumental in helping us accommodate the increased work load safely and smoothly. From FY 1986 to FY 1987, despite industry concern that delays would increase, delays were reduced 5.5% at the 22 pacing airports even though operations increased by 2.3%.

Following a traffic managers' conference in the fall of 1987, a project known as the Sector Traffic Management Program was implemented in the spring of 1988, which established an operationally acceptable level of traffic for each of the 650 air traffic control center sectors.

We also made additional hardware and software improvements at the Traffic Management Units (TMU) at all 20 centers in 1988. Black and white computer terminals were replaced with color graphic displays and additional units were installed. These improvements have allowed traffic management specialists to analyze demand at airports within their center's area and to take appropriate action in advance of a problem occurring. Moreover, the additional computer displays have provided the TMU with the ability to analyze past and future traffic scenarios off-line in order to improve traffic management capabilities.

In March 1988, a refurbished CFCF was opened here at headquarters. The expanded quarters provided four additional positions of operation to monitor the nationwide demand/capacity situation. The Monitor Alert software enhancement to the ASD became operational at that time. This feature provides traffic management specialists in CFCF with alerts whenever a predetermined level of traffic is predicted in any one of the 650 center sectors. The traffic management specialist, after receiving an alert, is now able to take action to avoid the saturation of a sector, typically by rerouting key aircraft. During FY 1988, an unprecedented 22% reduction in delays was realized at the 22 pacing airports.

On October 3, 1988, following a series of operational errors at O'Hare, a daily traffic management program was instituted for the Chicago area to reduce demand and traffic complexity. This resulted in significant delays at O'Hare, but was a step we believed needed to be taken to address a potential safety problem. From October 1988 through March 1989, delays at O'Hare increased 123% compared to the 9 months prior to October. As the result of the installation of the ASD at O'Hare and the Chicago center, and a moderate increase in staffing at O'Hare, traffic management restrictions have been reduced for the Chicago area from 12 hours a day in October to an optional 3-hour program beginning at 5 p.m. dependent on weather and traffic demand.

Over this summer and fall, we will deploy the ASD to all 20 of the centers. When the system becomes operational, the Monitor Alert Program will be brought on-line and provide our centers with the most sophisticated software currently in the Traffic Management System.

A follow-on software enhancement known as Automatic Demand Resolution (ADR) will be ready for testing in the late fall. That program will upgrade the Traffic Management System and will provide traffic management specialists in both our centers and at CFCF with computer-generated solutions in rank order to respond to traffic management problems. In other words, when our system predicts that a sector will become too busy, the computer will provide the traffic management specialist with proposed ways of dealing with the expected traffic increase.

OVERTIME

We have continued to try to reduce overtime. There are, however, some facilities where controllers are working more overtime than we would like. In calendar year 1988, total overtime hours for our controllers dropped from 735,423 in 1987 down to 615,770. In centers, it decreased from 390,460 hours to 297,167; in terminals, it was reduced from 344,963 hours to 318,604. Our data shows that nearly 69% of our centers and 74% of our terminals were not scheduling any overtime in 1988. Averages, of course, do not tell the whole story, because, within these 1988 figures, Boston Center showed a 77% reduction in average overtime while Indianapolis Center increased by 16%. And, within a given facility, some areas may be working considerable overtime while others are not.

We have made general progress in driving down overtime, but we are not satisfied with where we are. As additional personnel are hired and trained, and, importantly, if we are able to implement our pay demonstration program as proposed, we expect to achieve further improvements. Meanwhile, we will continue to monitor the overtime situation to ensure that controllers are not working excessive amounts.

MORALE

Morale is a very difficult area to gauge. My discussions with FAA regional administrators and my visits and the visits of my associates here in Washington to facilities throughout the country suggest to us that overall the morale of our controller workforce is good, although it varies from facility to facility and does not remain static over time.

We have taken a variety of steps to improve the working environment for our controllers. We continue to seek the involvement of our controller workforce in the agency's decisionmaking processes and to improve the managerial structure in which they operate. And, I believe we have made considerable progress in these areas. For example, we began to use an entirely new way to select our air traffic supervisors and managers, allowing the controllers themselves to have a strong voice in determining who among them are the best candidates for these positions. Controllers helped develop this new method which we call SIDP (for Supervisory Identification and Development Program), and NATCA has agreed to its use. Our experimental results were excellent, and we began to use SIDP nationwide this year. We hope changes like this one will help narrow the gap in perception between controllers and their managers.

We have also sought to measure the attitudes of FAA controllers through our own Employee Surveys. We use a Job Satisfaction Survey (JSS) and a Survey Feedback Action (SFA) Program.

The JSS is designed to measure how employees feel about FAA and their work. We have done the JSS in 1984, 1986, and 1988, and will continue to survey a sample of FAA employees every other year.

The Job Satisfaction Surveys of our air traffic control workforce indicate there has been a considerable improvement in controller job satisfaction since 1986. Overall job satisfaction in Air Traffic in 1986 for center and tower controllers was 57% and 60%, respectively. In our 1988 survey, for these categories, job satisfaction increased to 66% and 71%. The JSS also shows improvement in levels of satisfaction with success in mission in Air Traffic: 1986--59% (centers) & 64% (towers), 1988--71% (centers) & 75% (towers); and improvement in levels of satisfaction with communication from supervisors in Air Traffic: 1986--63% (centers) & 64% (towers), 1988--70% (centers) & 71% (towers).

This year, we also began our Survey Feedback Action Program in order to give FAA supervisors and managers specific feedback from their own employees on how the workgroup and management are doing in their own facility or organization. This year 78% of all FAA employees completed Survey Feedback Action questionnaires, and each supervisor and manager will work with their own workgroups to address the specific problems identified in the survey. Our objective was to give every employee a chance to identify problems and also have a voice in correcting them.

The summarized Survey Feedback Action questionnaire results from Air Traffic facilities were encouraging in many ways. They reflected that 74% of the center controllers and 75% of tower controllers indicated that supervisors communicated honestly and openly; 79% of center controllers and 77% of tower controllers felt they had received adequate training to do the job; and 81% of center and tower controllers felt they were treated fairly, regardless of age, sex, or race.

We will make our survey results available to the Subcommittee. Most importantly, I want the Subcommittee to know that we are taking our employees' opinions seriously and are not only seeking their opinions but acting on them. GAO has allowed us to work with them to increase the usefulness of their survey, and we will continue to work with them to understand the results.

AIR TRAFFIC TRAINING

FAA made a major commitment last August to upgrade its training process for air traffic controllers. In the past it has taken too long to train controllers up to the full performance level and our reliance on OJT has disrupted our operations and placed an added burden on controllers. Our training has been effective, but oftentimes not efficient. We are proceeding with efforts to integrate much more dynamic simulation into our training processes with a view both towards reducing the amount of actual OJT time necessary for controller training and improving the quality of the training experience. We instituted last August a new OJT requirement which separates the instruction and evaluation functions of controller OJT to ensure a more objective process. A new OJT instructor course was developed and is being administered to a select cadre of trainers who will then teach air traffic controllers how to conduct OJT more effectively in the live environment. We are also developing an OJT Evaluators course for our controller personnel.

We have developed Operational Position Standards (OPS) to provide a standardized method for position operation, with a goal of reducing operational errors and training failures. We are working at this time on an OPS for supervisory controller positions, using the Southwest Region as our lead region for development, confirmation, and implementation of the supervisory OPS.

Further, we are developing an automated training management system to be used in our air traffic control centers to provide us with up to date data on the training progress of developmental controllers. This system will allow us to plan more effectively for our staffing needs and to monitor the effectiveness of the management of facility training programs. We are currently field testing this program and anticipate operational testing in the centers by the end of this fiscal year.

Much more needs to be done to update our training processes to ensure that we are providing the most efficient and highest quality training to our controllers, and we are aggressively pursuing a variety of efforts to do just that.

SYSTEM SAFETY

The safety afforded by our air traffic control system remains high, and we are continuing to make hardware, software, and personnel improvements. Overall indicators suggest a positive trend. Runway incursions were down from 320 in 1986 to 174 in 1988; reported near midair collisions dropped from 840 in 1986 (followed by a substantial increase in 1987) to 712 in 1988; and operational errors fell from 1202 in 1986 to 1042 in 1988. We are diligently pursuing efforts to keep these trends headed downward.

We have also recently instituted a new approach to assessing safety. We have implemented a new review process, which we call System Safety and Efficiency Review (SSER), that is used to conduct indepth analyses of selected portions of the National Airspace System. These reviews are conducted under the auspices of the Associate Administrator for Aviation Safety, and use a wide variety of talent and expertise from both within and outside the FAA. FAA representatives, assisted by representatives from industry and other government agencies, work together in an effort to examine and analyze issues that relate to the safety and efficiency of a specific location such as O'Hare or a general area such as the Northeast Corridor.

These reviews are conducted in two phases. The first phase consists of on-site factfinding and issue identification by one or more teams led by an FAA team leader with expertise in a particular area (e.g., air traffic control, flight standards, or airports). The second phase consists of FAA team members studying and analyzing all the data collected during the first phase and developing recommendations for corrective action or improvements. An agency action plan is then developed based on the recommendations contained in the FAA team report.

In closing, Mr. Chairman, I want to assure you we will continue to work with GAO on its recently completed survey, and believe it provides us with additional valuable data that we can consider as we make further changes to improve the safety and efficiency of our air traffic control system. Our controllers', supervisors', and managers' perceptions are important to us, and we will all benefit from the opportunity of having additional information available to us as to what those perceptions are. We remain committed to improving the air traffic control system, and will continue to work closely with our workforce as we do so. They are key to our efforts to create the best possible air traffic control system to take us into the 21st century.

That completes my prepared statement, Mr. Chairman. I would be pleased to respond to any questions you may have at this time.

U.S. Department
of Transportation
**Federal Aviation
Administration**

800 Independence Ave., S.W.
Washington, D.C. 20591

JUL 26 1989

The Honorable Guy V. Molinari
Ranking Republican Member
Subcommittee on Investigations and Oversight
House of Representatives
Washington, DC 20515

Dear Mr. Molinari:

Thank you for your kind remarks concerning the Federal Aviation Administration's May 25 appearance before the Subcommittee on Investigations and Oversight to discuss the status of the air traffic control system.

I am pleased to submit the agency's responses to your questions for the record. If I can be of further assistance, please let me know.

Sincerely,

/s/
Robert E. Whittington
Acting Deputy Administrator

Enclosure

cc: The Honorable Glenn Anderson

QUESTION 1: Witnesses today have mentioned the serious problem of communication in the FAA. The GAO survey highlights the diversity of views among controllers/supervisors on the one hand and facility managers on the other. This seems to be a persistent problem. Do you have any plans that would eliminate this problem and, if necessary, the individuals causing it?

ANSWER: We have several major programs under way to improve communications among managers, supervisors, and employees. Each program is based on sound, proven principles of effective communications within and among work groups. The goal of these programs is to surface problems and constructively resolve differences. The following programs are examples:

The Employee Survey Program. This is actually a two-pronged approach, consisting of two surveys: The Job Satisfaction Survey (JSS) and the Survey Feedback Action (SFA) Program. The JSS provides input to senior management concerning employee views of the agency and their work environment. It is a random sample of employees and is conducted biannually. The SFA is sent to all employees and focuses on giving individual supervisors and managers feedback from their employees. It is conducted annually. A vital part of this process is for supervisors and managers to work with their employees to develop action plans and make needed improvements.

Employee Participation Groups and Focus Groups. Both programs are designed to improve organizational communications and constructively reconcile differences. Using work groups consisting of employees and supervisors/managers, they work together to resolve work problems and improve communications.

Collaborative Labor/Management Relationships. We have made significant progress in implementing a more collaborative approach between FAA managers and our national labor unions. For example, in 1988, we gave joint labor/management training to approximately 1,000 air traffic facility managers and National Air Traffic Controllers Association representatives. Many participants rated this course, "Labor and Management: Partners in Problem Solving," as the best training they had received in the agency. We plan to continue this training.

Question 2: The National Transportation Safety Board recommended that you reduce traffic at Chicago O'Hare. At the end of last year you agreed to do so. Have you studied the suggestion that traffic limits may hold a short-term solution to the FAA shortage of controllers at other facilities?

Answer: We have considered that suggestion. We have limited traffic when and where warranted. Each air traffic control facility manager is responsible for assessing the facility's ability to provide air traffic control services. Staffing and equipment limitations are considered in these assessments.

When required, our Central Flow Control Facility will institute a national ground delay program to manage traffic within a geographic or specific facility area. Ground delay programs are implemented to insure that facilities do not exceed operationally acceptable levels of traffic. We will continue to limit activity, when warranted, to maintain safety of operations when a large number of operations are scheduled within compact time periods.

Question 3: Since you maintain that the air traffic control system is operating safely and that you have fewer FPL controllers than before the strike now handling more traffic, what are the improvements in the system that now makes it possible to do more with less?

Answer: Today, in contrast to 1981, traffic management is an integral part of the air traffic system. Traffic Management Units have been established at all of our Air Route Traffic Control Centers and at selected high density terminal facilities. Our Central Flow Control Facility orchestrates the activities of the Traffic Management Units and coordinates these activities with user groups. We plan to increase the number of traffic management personnel throughout the country to prepare for future traffic growth.

The day-to-day workload of the controller has been reduced through the use of traffic management initiatives. These initiatives have greatly complemented our safety goals by regulating the flow of air traffic by distributing aircraft demand during periods of heavy congestion. Providing a uniform flow of activity has resulted in reduced overall staffing requirements. Additionally, more aircraft can be accommodated as traffic levels are constant for longer periods of the day.

One of the major advances in traffic management has been the Aircraft Situation Display (ASD). The ASD is capable of displaying all tracked airborne aircraft throughout the Nation's airspace. The true value of the ASD is in its ability to filter selected tracks and display only those aircraft destined to a particular airport or into a particular sector. By observing these selected aircraft, traffic management personnel can make real-time decisions as to what action needs to be initiated to prevent sector or airport overload.

As you know, we are nearing realization of the Advanced Automation System (AAS). When completed, AAS will appreciably increase our air traffic controller productivity. A major step toward AAS has been completed with the installation of the Host computer system.

The Host computer, a replacement for the NAS 9020, has an increased storage capacity, improved reliability, and a processor that operates much faster than its predecessor. This has permitted our Air Route Traffic Control Centers to make better utilization of their resources. This system has reduced controller workload and increased effectiveness.

Question 4: Given the volatility of the retirement issue, what contingency plan does FAA have for those facilities that have large percentages of retirement eligible personnel, particularly at the first-line supervisory level?

Answer: Our data shows that since 1982, the number of retirements has been consistent, predictable, and manageable at approximately 3 percent of the workforce. The number of eligibles has also shown a consistent trend. Our staffing requirements identified annually on a national basis take into account many factors including anticipated retirements. Since our experience has shown a consistent and predictable number of retirees and those eligible for retirement, we do not have a special contingency plan.

Question 5: What are the specific air traffic management program improvements FAA is working on to reduce controller work load and what is FAA's timetable for implementation?

Answer: As indicated in the response to question 3, one of the major advances in FAA's Traffic Management Program is the Aircraft Situation Display (ASD). An additional feature of ASD is Monitor Alert. This feature continuously monitors the projected traffic volume of every sector in the system. If any sector's projected volume exceeds its operationally acceptable level, an alert message is generated and corrective action is taken. Development efforts are underway to incorporate a resolution feature in Monitor Alert. This enhancement will provide suggested alternative actions that will prevent the projected sector overload from occurring.

In addition to ASD, we also conduct, on a quarterly basis, a national review of the effectiveness of static miles-in-trail restrictions. When appropriate, modifications to these restrictions are made. Our most recent review was completed in May. In areas where the potential for delays exist, we have conducted operational assessments and initiated measures for improving static miles-in-trail procedures.

We are also incorporating the Arrival Sequencing Program (ASP) and the En Route Spacing Program (ESP) functions into the Host computer software. The ASP function assists the controller by providing a smooth and consistent arrival flow of traffic into an airport area. ESP performs a similar function between control sectors where multiple flows of traffic are sequenced before reaching an enroute fix. This software modification will be deployed to field facilities early next year.

Question 6: What credibility do you give to controller and supervisor opinions? What effect do these opinions have on the operations of the air traffic control system?

Answer: We use participative management as part of the decision making process in which employees at all levels of the workforce have an opportunity to be involved. Additionally, employees have the opportunity to participate in decision making activities through established groups such as Human Relations Committees, Facility Advisory Boards, Supervisors Committee, Air Traffic Managers Committee and the Facility Air Traffic Technical Advisory Committee.

Our air traffic workforce has a tremendous ability to be both creative and innovative. The heavy influx of new controllers has added to the agency's potential in this area. The increased use of participative management has enabled more employees to share their ideas. Controllers are also invited to participate, through their bargaining units, in numerous systems requirements teams formed as a result of the Advance Automation System initiative.

Management in the air traffic system is composed of people who have progressed through the workforce. The knowledge that these managers rely upon to make decisions is based on their past operational experience and the recommendations from the various employee participation groups.

Question 7: What steps have you taken to streamline the hiring process of air traffic controllers? How long does it now take to hire a new applicant? What is the current washout rate at the Academy and at terminals and centers? What are the assumptions being made today regarding attrition?

Answer: Under delegated authority from the Office of Personnel Management (OPM), we have assumed responsibility to administer and score the air traffic controller examination, initiate pre-employment processing as soon as the eligible candidates have been identified by the test scores, and make job offers to those who obtain a high score on the examination. Through cooperative agreements with OPM and the Federal Bureau of Investigation, we have assumed responsibility for the majority of the required background investigations, including conducting law enforcement agency checks and assisting in the expeditious processing of fingerprint and name checks. As a result of these efforts, the applications of candidates who do not require additional evaluation or investigation are being processed within a 45-60 day time period. This is a significant reduction from the former 6-18 month time period.

For fiscal year 1989, the washout rate at the Academy is approximately 40 percent, the loss rate of developmentals in terminals is 11 percent and in centers approximately 17 percent. The assumption being made about attrition is that it will continue at a normal rate of approximately 150 per month.

Question 8: Describe your new "revolutionizing" method of training controllers?

Answer: As a result of recommendations contained in three independent studies, we have developed our Flight Plan for Training--an ambitious plan of action to overhaul and modernize our training system. A significant portion of the Flight Plan is directed toward air traffic control training. The overall goal is to improve the quality of the air traffic control training and to decrease the time it takes an individual to reach full performance level. Planned changes include:

- Using cognitive task analyses as a basis to totally redesign each option of the air traffic control curricula to meet agency training needs throughout the multiple transitions of the NAS Plan.

- Establishing a core proficiency training program.

- Establishing radar training centers in several locations throughout the country that will give site-specific radar simulation training for enroute facilities and TRACONS. This will off-load site-specific training from the facilities, shorten total training time, and greatly increase standardization.

- Separating training progression from grade progression to take advantage of the improved training efficiencies.

- Improving selection, training, evaluation, and certification of on-the-job training instructors and examiners.

- Using the academic community to give both proficiency training and pre-hire training in the air traffic control occupation. This will allow us to immediately assign newly hired employees to advanced FAA Academy or field training.

Question 9: What is the percentage of time a developmental controller learns on a simulator as compared to live traffic? Do you intend to increase simulator training? How effective is simulator training in developing the psychological aspect of working traffic?

Answer: The percentage of time a developmental controller trains on a radar simulator as compared to live traffic training is dependent upon several factors including the time allocated for training and the time required to certify as a full performance level controller. In addition, air traffic facility managers have some latitude in training scheduling within their respective facilities. In effect, every developmental controller going through training has a different percentage of simulation training to live traffic training.

We are actively seeking to increase our simulation capacity in both the air route traffic control centers and terminal facilities. We are planning to shift the burden of training from the live environment to a simulated environment. Simulator training will ensure more standardized training as well as foster the development of higher skill levels prior to commencing on-the-job training (OJT) with live traffic. We believe that better preparation of developmental controllers for OJT will enable them to quickly and safely certify as full performance controllers.

We currently do not have a clear picture of the psychological side of controlling live traffic. Simulator training enables trainees to integrate and rehearse the cognitive tasks of controlling air traffic. However, simulator training does not serve as a replacement for the psychological demands of the real time environment. As the development of the NAS Plan programs such as Advanced En-Route Automation and data link progress, additional information will be available. We have also contracted for a cognitive task analysis of air traffic controllers. When we have this data and are able to compare it with the more traditional job task analysis, a clearer picture of the psychological side of controlling air traffic will emerge. This analysis will provide core information for the redesign of the air traffic curricula.

We have another on going contract, relying on human factors experts, to improve human performance in our air traffic training program. This effort is geared toward the work practices of and procedures used by controllers to determine what improvements can be made. As a result of this effort, we have already developed operational position standards, new procedures for on-the-job training and technical performance reviews, and have begun exploring future requirements associated with the computer-human interface of the Advanced Automation System.

Question 10: With the current setback to your pay demonstration project program, what alternatives do you have in mind to increase experienced controller levels at hard to recruit facilities? How has this setback affected controller morale?

Answer: We are implementing the full pay demonstration as published in the March 10, 1989, Federal Register. Employee eligibility for the demonstration project allowance commenced on

June 18, 1989. In addition to the demonstration project, we are continuing our work in developing a proposal for a new pay system for air traffic controllers, as well as our ongoing efforts to improve our recruitment and training programs.

The proposal to reduce the demonstration project did appear to have some negative effect on controller morale at the facilities included in the project, but we anticipate that implementation of the project will eliminate these concerns.

Question 11: FAA is currently conducting a pay study analysis which includes the cost-of-living problem. When will the study be completed? What have you found so far?

Answer: We plan to have a proposal for a new compensation system ready later this year. The cost-of-living problem was found to be a major impediment in attracting a sufficient number of highly qualified air traffic controllers to facilities in high-cost areas.

Question 12: With delays in the NAS Plan, what plans does FAA have for adequately maintaining the old equipment until the new is installed?

Answer: In the mid-1980's, when it became apparent that some major NAS Plan projects would be delayed, the agency began to assess the current system to determine any actions necessary to ensure the integrity of the national airspace system throughout the transition to the NAS Plan modernization. A working group of headquarters and regional representatives convened in 1987 to address problems with sustaining the current National Airspace System. The work performed by this group formed the basis for the development of an Interim Support Plan (ISP).

The ISP is comprised of a number of procurements of system hardware and software to improve capacity and reliability and to forestall system support problems. The strategy is to employ low-risk, short term, high-payback solutions acquiring equipment through existing contracts, sole source, and off-the-shelf procurements, whenever possible. The overall program is planned to be implemented over a five year period.

Beginning in Fiscal Year 1989, the ISP is a line item in our F&E budget. Acquisition strategies have been developed and procurement activities are underway for the following:

1. ARTS Solid-State Memory. Replace core memory at each ARTS IIIA/EARTS location with solid-state memory. This attains a benefit of 20 percent increase in processing efficiency at single sensor sites and 30 percent increase at dual sensor sites. This will also facilitate maintenance and supply support of the existing ARTS IIIA equipment since core memory is no longer supported by the manufacturer.

2. ARTS Keyboards, Trackballs, Ancillary Equipment. Providing ARTS-related supplies and services will allow the ARTS IIIA/EARTS equipment to remain operational until the AAS program is completely implemented. This will also improve system performance and result in more efficient maintenance of ARTS IIA equipment.

3. Establishment of Additional ARTS Radar Positions. Establishing additional ARTS II/III radar positions will accommodate continued growth in air traffic and provide for more efficient training of air traffic controllers.

4. Uninterruptible Power Supply (UPS) for ARTS IIA. This is necessary to assure the safe and efficient flow of air traffic at high-activity ARTS IIA sites with high incidences of outages due to electrical power fluctuations and interruptions.

5. Long-Range Radar Upgrades. The procurement of solid-state modification kits for the remainder of the vacuum-tube circuitry in long-range radar systems will improve the reliability of these radar systems and allow them to be maintained until they are replaced.

6. Landing Systems. Obsolete AN/GRN-27 ILS Systems are being replaced at critical locations. This equipment is nonstandard and no longer supported by the manufacturer. Also, procure "capture effect" glide slope conversion kits to convert existing glide slope facilities affected by obstructions.

7. Airport Weather Sensors. New hygrothermometers and cloud height indicators are being procured as replacements for existing obsolete equipment at FAA control towers. This will ensure continuation of reliable aviation weather services and provide interim capabilities before implementation of AWOS.

8. Establish Terminal Radar Facilities. Terminal radar facilities are being established at newly qualified locations. These facilities will accommodate consolidation and expansion of the NAS.

In addition, the FAA bought out the available ARTS life cycle spares for FAA towers before the contractors ceased to manufacture them. This will allow the ARTS II and ARTS III equipment to be properly provisioned until replaced by AAS.

Question 13: What initiatives does FAA have planned to address the human relations concerns of the workforce?

Answer: As part of our overall effort to improve human relations in FAA, we have started a number of initiatives to increase the effectiveness of our managers and supervisors and to change the agency's culture. These initiatives include a new system for selecting supervisors; the development of managers and supervisors; more collaborative/participative approaches in dealing between supervisors/managers and employees; and evaluation tools (such as the agency's annual Survey Feedback Action Program) to identify and correct problems. Specific examples include:

- Supervisory Identification and Development Program. This innovative program is significantly different from traditional selection systems in two ways: (1) it uses employee input to help identify and select peers who have the potential to become supervisors; and (2) it bases supervisory selection on demonstrated effectiveness in supervisory-related skills and not just on technical proficiency and knowledge. This program now covers the air traffic work force and will be expanded to other work forces in the agency.

- Supervisory and Management Development. We have completely revised the curriculum for the initial first-level supervisory course. We are also in the process of revising the managers' course. These changes incorporate the findings of studies which identified specific competencies that supervisors and managers need to perform effectively. The changes are part of the agency's Flight Plan for Training.

- The National Airspace System (NAS) Human Resource Management Plan. This plan is a vital part of the NAS Plan because it will establish a process to ensure that the proper numbers of trained and motivated people are available to support the modernized NAS.

- The Culture Change Plan. This plan incorporates each of the previously discussed and other initiatives and is designed to assure that the agency uses an integrated, long-range, planned approach to improve overall human relations within the entire agency workforce.

- Collaborative Labor/Management Relationships. Discussed previously in response to Question 1.

Question 14: FAA in January 1989 decided to revoke its aviation safety indicators contract with FU Associates in favor of doing this project in-house. How much will it now cost the FAA to complete this project in house? How many staff will be needed for the project? When will the project be completed?

Answer: The Safety Indicators Program is estimated to cost approximately $1.6 million during Fiscal Year 1990 and approximately $7.1 million over the next four years (Fiscal Years 1991-1994). The costs include technical support (through interagency agreements and/or other contractual instruments) in analytical techniques, expert systems consultants, and systems development efforts. Our current schedule calls for the development, by September 1989, of a structure of indicator categories which will cover air traffic and flight operations. Safety indicators in selected air traffic areas are scheduled for development by March 1990.

A Safety Indicators Division has been established in the Office of Aviation Safety to develop and implement the Safety Indicators Program. The Division has five analysts, with over half dedicated full-time to the program. In addition, we are working with and receiving support from the aviation industry and other governmental agencies. In April, we sponsored a workshop on the formulation of an overall structure for aviation safety indicators. The workshop was attended by over 70 participants from government, industry, and foreign aviation authorities.

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